

# Manufacturers Record

## Exponent of America



\$6.50 per Year.  
Single Copy, 20 Cents.

Baltimore, Md.  
JANUARY 13, 1921

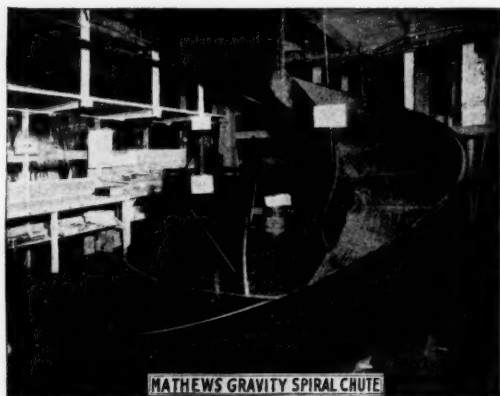
### THE JOHNSON BILL SHOULD PASS

With hordes of alien peoples eagerly awaiting opportunity for admission to this country, we should at once adopt adequate measures to sift out the undesirables and the vicious. There are 15,000,000 to 17,000,000 aliens here now—about one-seventh of our entire population. Before we add to this enormous aggregate we may well call a halt so that we can take stock, see where we stand and determine on the best course for the future. The Johnson Bill, now before the Senate Committee on Immigration, provides for the stoppage of immigration for one year. It should be passed and become the law of the land.

In some quarters it is urged that America is merely a trustee for the world, and that we have no moral right to shut our doors to the oppressed of other lands. A man having a home for his family may feel that to a certain extent he is a trustee to help care for others, but if he throws open his house to the weak and vicious, and those who preach false doctrines as to family life, he will destroy his own home, and thus make it impossible for him in the future to safeguard his family and to use his home as a point from which to radiate influences for good.

America represents a great home. We can use its resources and its opportunities as trustees for the benefit of the world, but if we throw it wide open to all the vicious and the inefficient and the beggars of the world, and those who teach doctrines false to our sense of government, and permit aliens who are alien in thought and word and life to our country to take possession of our home, we will prove recreant to our trusteeship; we will destroy our civilization, and this great country, the last hope of human liberty, civil and religious, will go down in ruin.

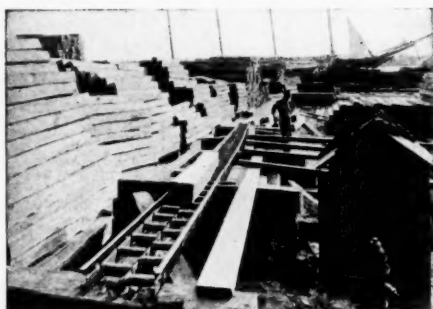
Every consideration of prudence and safety calls for the passage of the Johnson Bill.



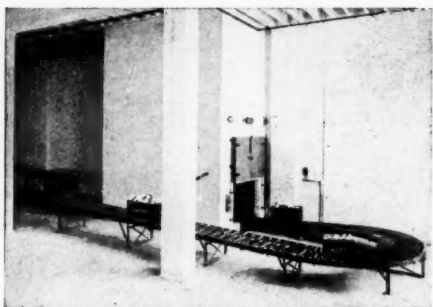
# Industrial Preparation

means, for one thing, finding the weak spots in factory or mill operation.

One of your weak spots may be too much manual labor in getting materials or finished products from one place to another in plant or yard. Too much labor of this kind means loss of productive time and general plant inefficiency.



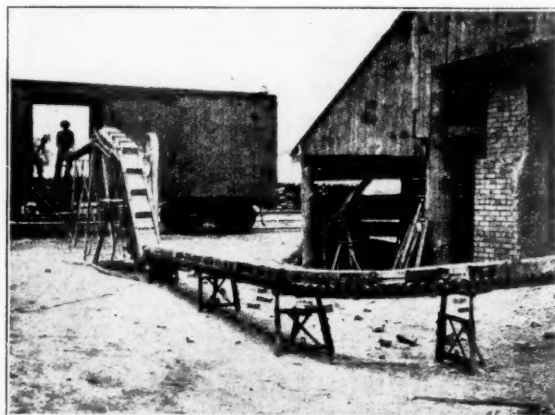
Now, while your orders are running light, why not call in a Mathews Engineer to talk with you about your indoor conveying problems, and learn from him how gravity and power units can be designed to accomplish mechanical conveyance through all departments.



Prepare for the rush that will surely come within the next few months. A conveying system will pay its own cost and a substantial profit on the investment.



Write for new general catalog and then ask for an interview with our nearest Sales Engineer without obligation.



**MATHEWS  
GRAVITY CARRIER COMPANY**

147 Tenth Street  
ELLWOOD CITY, PENNA.

Branch Factories: PORT HOPE, ONT.  
LONDON, ENG.

# Manufacturers Record

Exponent of America

JANUARY 13, 1921

Volume LXXIX

## Table of Contents

Number 2

The Johnson Bill Should Pass.....Cover Page

EDITORIALS - - - - - 79-89

Stop Selling Cotton.

A Vicious and Ignorant Attack on the Emergency  
Tariff Bill.

In Considering an Association of Nations We Must  
Deal With Conditions As They Are.

The Secondary Boycott Illegal.

Senator Penrose's Change of Front.

Financing the Farmer.

Revolutionizing Facts As to Reforestation of Cut-over  
Lands and As to Paper-making.

Cutting Off the Dog's Tail Too Close to His Head.

Are You a Burden Bearer or a Burden Shirker in the  
Fight for Prosperity?

This Is the Time—Do It Now!

Has America No Answer for This German Threat?

The Kansas Industrial Court Decision and Its Possi-  
ble Effect on Industry.

Let the Guaranty to the Railroads Be Made Good  
at Once.

High Wages a National Blessing, Not a Curse.

A Tribute As Unique and Original As Unusual.

High Railroad Freight Rates and the Panama Canal  
Route.

## NEWS ARTICLES

Review of 1920 Building Construction in the South..... 90

\$100,000,000 Industrial and Building Expansion in Birmingham During 1920..... 94

Perpetual Timber Supply Through Reforestation As Basis for Industrial Permanency of Bogalusa..... 97  
*By Courtenay De Kalb*

Jacksonville a World Port..... 104

War Finance Corporation Can Conduct Business.....*By Eugene Meyer, Jr.* 104

Borrow and Develop Policy Better Than One of Deflation.....*By Morton Frewen* 105

Oil and Gas Struck Near Charleston, South Carolina..... 107

## DEPARTMENTS

News and Views From Our Readers..... 108

The Iron and Steel Situation..... 109

Good Roads and Streets..... 112

Railroads..... 113

Lumber and Building Material..... 114

Mechanical..... 116

Construction News..... 117

Industrial News..... 131

New Financial Corporations..... 134

New Securities..... 134

PUBLISHED EVERY THURSDAY BY THE

MANUFACTURERS RECORD PUBLISHING CO., BALTIMORE, MD.

Branch Offices: New York, 30 Church St.; Chicago, 11 South La Salle St.; Boston, 734 Old South Bldg.; St. Louis, 915 Olive St.  
Washington, Whaley-Eaton Service, 456-459 Munsey Building.

### SUBSCRIPTION RATES

\$6.50 a year (in advance); six months, \$3.50; three months, \$2.00 to United States, Mexico, Cuba, Porto Rico, Hawaii and the  
Philippines. For Canada, add postage \$2 a year. For other foreign countries, add postage \$5.50 a year.

Back numbers, if available and not over one month old, 20 cents each. From one month to six months old, 50 cents each; over  
six months old, \$1 each.

In ordering change of address, give old as well as new address.

MEMBER ASSOCIATED BUSINESS PAPERS, INC., AND AUDIT BUREAU OF CIRCULATIONS.

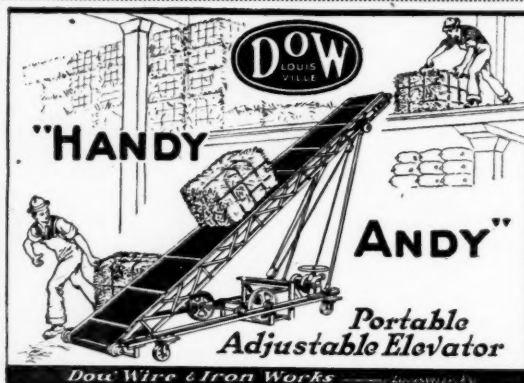
## NORTHROP LOOMS

Trade Mark Reg. U. S. Pat. Off.

Make better goods and more of them with less than half the labor cost of weaving

## Draper Corporation


Hopedale, Massachusetts



**"HANDY ANDY"**

*Portable Adjustable Elevator*

*Dow Wire & Iron Works*



## B. & B. WIRE ROPE

Safe and sound all the way through. You can depend upon it absolutely and always.

**Broderick & Bascom Rope Co.**  
ST. LOUIS, MO.

*Mfrs. of Celebrated Yellow Strand Wire Rope*

## Black Diamond for Cutting

When you buy a file, you buy cutting service. For extra cutting value, buy Black Diamonds. Made since 1863 to a standard of file quality that has won highest honors at expositions and at the bench.

Two simple steps will lead to better filing except where Black Diamonds are already used. Our catalog is free for the asking. A shop trial costs nothing and will show convincing results.



## Black Diamond File Works

G. & H. Barnett Company 1078 Frankford Ave.  
Philadelphia, Pa.  
Owned and Operated by Nicholson File Co.

**DUXBAK**  
Waterproof  
Leather  
Belting



*Chas. Schieren Company*  
ESTABLISHED 1868  
Tanners and  
Belt Manufacture  
26 FERRY ST., NEW YORK

*Always Leads in Tests of*  
**Quality, Endurance and Satisfactory Service**

## Are Your Men On Time?

Stop Payroll Leaks with

## Simplex Time Recorders

Low in Cost—Big in Efficiency

**L. P. LATHEM**

527 Candler Bldg.

ATLANTA, GA.



## NICHOLSON FILES

The files that cut the Smoothest—a File for every purpose.

Send for File Philosophy—a fifty years' Education in Files and Filing in one hour.

**NICHOLSON FILE CO.**

Providence, Rhode Island, U. S. A.



**KINNEAR ROLLING DOOR**

**Always Ready Always Easy**

## KINNEAR ROLLING DOOR

Always Ready! Always on the job! Always doing its work and doing it well!

The "Kinnear" is perfectly balanced. It is in perfect alignment in every way. There is nothing that binds, that sags or warps.

The Kinnear Door was the pioneer in this field and has maintained its leadership.

Our branch offices in principal cities give personal service. Write for Catalog No. D-10.

**THE KINNEAR MFG. CO.**

823-873 Field Ave., Columbus, O.

New York Office:  
1182 Broadway  
New York, N. Y.

Washington Office:  
929 Southern Bldg.  
Washington, D. C.



# Manufacturers Record

EXPONENT OF AMERICA

Devoted to the Upbuilding of the Nation Through the Development  
of the South and Southwest as the Nation's Greatest Material Asset

Trade-Name Registered in the U. S. Patent Office

VOL. LXXIX, No. 2  
WEEKLY.

BALTIMORE, JANUARY 13, 1921

3 SINGLE COPIES, 20 CENTS.  
\$6.50 A YEAR.

PUBLISHED EVERY THURSDAY BY THE  
MANUFACTURERS RECORD PUBLISHING CO.

Office: Manufacturers Record Building, Cor. Commerce and Water Sts.,  
BALTIMORE, MARYLAND

RICHARD H. EDMONDS, President

VICTOR H. POWER, Treasurer

FRANK GOULD, Vice-President

I. S. FIELD, Secretary

RICHARD H. EDMONDS, Editor

BRANCH OFFICES:

CHICAGO, 11 So. La Salle St.

NEW YORK, 37 Church St.

ST. LOUIS, 915 Olive St.

BOSTON, 734 Old South Bldg.

WASHINGTON (Whaley-Eaton Service),

456-459 Munsey Bldg.

SUBSCRIPTION RATES:

\$6.50 a year (in advance); six months, \$3.50; three months, \$2 to United States, Mexico, Cuba, Porto Rico, Hawaii and the Philippines. For Canada add postage \$2 a year. For other foreign countries add postage \$5.50 a year. Back numbers, if available and not over one month old, 20 cents each. From one month to six months old, 50 cents each; over six months old, \$1 each. In ordering change of address, give old as well as new address.

[Entered at the Baltimore Postoffice as second-class matter.]

In order to avoid delays all correspondence pertaining to news or advertising matters should be addressed directly to the Manufacturers Record, Baltimore, Md., and not to individual editors, officers, employees or any branch office.

## STOP SELLING COTTON.

WHEN the price of cotton is below the cost of production, the one sound policy is to stop selling, declares W. Haythornthwaite of the Lodge Mill, Burnley, England, in a letter to the American Cotton Association, St. Matthews, S. C. This advice is given at the close of a summary of the situation as follows:

"You will readily understand that so far as cotton growing is concerned, our knowledge in Lancashire is somewhat limited, and many theories of the cost of cotton growing have been put forward, ranging from 20 cents upwards.

"We have during the last six months had a very bitter experience, that the lower cotton prices fall the less cloth business was in evidence, until now, with such a low value, many serious losses have been incurred through depreciation, and a pessimistic feeling prevails as to the future.

"I have followed the course of cotton for some years, and find that only on a rising market will cloth people buy, and it therefore rests with your people in the States to hold back the goods until a consistently advancing market prevails.

"Today's price of cotton, 16 cents in New York and 23 cents in Liverpool, appear very much below cost, and there is only one sound policy when that obtains, and that is to stop selling.

"The world is hungry for cotton and cotton goods. Why supply them below cost?

## WE WONDER.

[Harvey's Weekly.]

Sir—Excuse me for resuscitating the dead, but as to the League of Nations, "may I not" ask what has happened to the 17,000 Protestant ministers who signed the petition for ratification sent to the Senate last fall?

JOS. A. VAUGHAN.

Ona, Burgos, Spain.

They are now suffering a great loss of prestige; they injured the cause of Christianity; they caused millions of laymen to refuse to follow their lead, for they demonstrated that they were not wise leaders; they proved themselves very poor judges of the whole situation and sought unwisely to bind this nation into an unholy compact with Mohammedans, heathens and others which would have meant the complete surrender of American sovereignty.

## A VICIOUS AND IGNORANT ATTACK ON THE EMERGENCY TARIFF BILL.

THE New York Herald is not usually grotesquely uninformed on the subjects it undertakes to discuss. It does not always reason well, but in general it takes the trouble to find out something about the facts in any situation. Unfortunately, it has recently insisted on discussing the emergency tariff measure in a puerile and childish way, as if the fonts of knowledge had run dry or their inspiration had never been invited.

The Herald declares that it is in favor of reasonable tariff help for the American farmer. Maybe so, but when it comes to a specific case, it reasons thus: "As for a duty of 7 cents a pound on cotton when 'cotton was king' for decades at a minimum selling price of 7 cents and when, at the outbreak of the European war, 10-cent cotton seemed an unattainable goal until peace should come, such a tariff schedule must look more like crass political buffoonery than serious legislative workmanship."

The Fordney emergency tariff bill does not propose a duty of 7 cents a pound on cotton. It provides for the duty on a special kind of cotton, the long staple cotton, the highest grade cotton. The Herald will search its records many, many years and never find that such cotton ever sold for 7 cents a pound. That has not happened since the Herald was published. It never has happened. Indeed, while the Herald was a struggling babe, South Carolina sea island cotton was selling regularly at more than \$1 a pound, and often for double that amount.

The American long staple market was broken a few months after the armistice when this Government permitted Egyptian cotton to be imported by the hundreds of thousands of bales. A great experiment in the production of long staple cotton was and is under way in Arizona. They are producing there under irrigation as fine cotton as is grown anywhere in the world. Much of it is being produced under the best possible scientific direction, by a great tire corporation, which plans 23,000 acres and does it with cheap Mexican labor. The Herald will be amazed to learn, we suppose, that the actual cost of production of this cotton in Arizona this year has been more than 70 cents a pound. Impossible? Well, the records happen to be available and they are correct in every detail. Indeed, we know of long staple cotton that has been produced under Government direction during the past year at a cost of considerably more than \$1 a pound. We doubt if it has been produced in Egypt for less than 30 or 40 cents a pound.

To promote the production of high-grade cotton is surely wise. The time will come, we hope, when scarcely any ordinary cotton will be produced in America. To put a premium on the production of long staple cotton is so wholly commendable an undertaking that we venture to say the Herald would not undertake to argue otherwise.

When the Herald says that cotton was king on the basis

of 7-cent cotton, it is equally stupid. Wild ducks sold at 75 cents the dozen in Southern markets at one time. Seven cents went a long way. Even so, we doubt if any cotton ever sold in this country at 7 cents a pound and showed a profit. The largest holder of slaves in South Carolina, in 1859, stated that the average return from his investment, over a term of years, was less than 3 per cent.

But the sheer ignorance of the Herald is convincingly established when it is understood that the cost of picking and ginning a bale of cotton alone is today more than 7 cents a pound! There are thousands of acres of cotton lying unpicked today because it costs more to pick and gin the staple than the staple is worth in the open market. The Herald charges twice as much for itself to subscribers as it did when the war broke out. It does so properly, on account of the additional cost of white paper. Moreover, it would indignantly repulse any effort to compel it to run daily at a loss. Yet it has the positive impertinence to attempt to arouse prejudice among its readers by suggesting to them that prices for cotton represent rank profiteering and that a reasonable, even a too low, tariff on long staple cotton is indefensible. What is the sense of being an intellectual nincompoop?

There is plenty of political and economic buffoonery in connection with the pending emergency tariff bill, but it happens to come entirely from the ignorant discussions of such papers as the Herald. Because such ignorance is inexcusable, the comment based on it can fairly be characterized as vicious.

When a paper says it is in favor of 7-cent cotton, it says that it is in favor of industrial slavery for every farmer, black or white, who produces cotton, that the children of such farmers ought not to be educated, that they ought not to have shoes, that they are entitled to no religious training and that their lot in life should be to labor and toil in poverty for the enrichment of others. Any newspaper in America that knowingly stands for a program of that sort is immoral and dishonest.

## IN CONSIDERING AN ASSOCIATION OF NATIONS WE MUST DEAL WITH CONDITIONS AS THEY ARE.

**I**N a letter to the MANUFACTURERS RECORD, Mr. Eugene Thwing presents a thought of extreme interest in regard to an association of nations of the world for peace. The letter was personal, not written for publication, but with his permission we are publishing the following extract:

"The governments of all nations must act in accordance with conditions as they are, because the responsibility for dealing with existing conditions is on them, and is inescapable. The governments, therefore, must prepare for war when war is almost sure to occur, and they are thus greatly hampered in doing at the same time effective peace work and creating an effective peace organization. They are now trying to make an organization which shall serve for both purposes as occasion demands, and it is out of the question. The same organization cannot do both tasks. 'Ye cannot serve two masters.' Out of the same spring cannot come sweet water and bitter, nor on the same tree figs and thistles. Peace cannot be forced upon any nation or people by fear or threat of war.

"Therefore, if we are to have any real league of peace, it will have to be, I think, a league which will be free from the responsibility and necessity of preparing, at the same time, for war. That is, it must be a league not of governments, but of people—a league of human hearts—loyal to their own governments, as citizens must be, ready in case of necessity to defend their country, but wholly committed as a league to the one task of creating conditions in the world and in human hearts everywhere which make for peace and not for war. Such a league should gain the fullest possible co-operation of governments in specific measures and acts, but should not attempt to assume governmental powers itself."

## THE SECONDARY BOYCOTT ILLEGAL.

**T**HE use of the "secondary boycott" by the labor unions was on January 3 declared illegal by the Supreme Court of the United States. Six justices upheld the opinions rendered, and three—Justices Holmes, Brandeis and Clarke—dissented. The claims of organized labor to exemptions from the inhibitions of the Sherman Anti-trust Law under Section 20 of the Clayton Act were overturned, and the fundamental truth that laws that are made for all the people, and not for one particular class, is made more than ever clear by a ruling of the highest tribunal of the land.

The case arose through an action of the Duplex Printing Press Co. of Battle Creek, Mich., against the International Association of Machinists, which has its headquarters in New York city.

This company, following a strike at its plant in 1913, sought to enjoin the Machinists' Union and others affiliated with it in the American Federation of Labor from calling strikes to prevent the hauling, assembling, repairing and operation of printing presses manufactured by the company. The labor unions had gone so far in their war upon the manufacturers as to threaten exhibitors at a printing machinery exhibition held at the time of the newspaper publishers' annual meeting in New York with strikes at all of their plants if they exhibited their machinery in the same building with the Duplex presses. The company asked that the national and local officers of the International Association of Machinists be enjoined from interference with the conduct of the company's business.

The United States District Court for the Southern district of New York, before which proceedings were brought, held that the Clayton Act, in effect, rendered labor unions immune from prosecution for employing the secondary boycott, and the Circuit Court of Appeals upheld that decision. The Duplex company then appealed to the United States Supreme Court with the result above given.

Samuel Gompers, president of the American Federation of Labor, in an attack on the decision, declares it to be "thoroughly in accord with the most ardent wishes of predatory greed, and should be highly sufficient to those who exalt profits and deny the aspirations of humanity." He, too, charges the court with "joining forces with the anti-union shop movement."

Mr. Gompers' vision is of the type that sees only what it will. It is scarcely worth while to remind him that all human aspirations must be founded in equity before the law. It were more truthful for him to say that the decision is in accord with the most ardent wishes of those who oppose the continual mouthings of those who come into our courts with a special class plea, and who favor one law for all and equity under that law.

If it be true that the court joins forces with the anti-union movement, or, more truthfully, the open-shop movement, then there would seem to be further justification for the belief that the law in its last analysis is simply the will of the people, for certain it is that the people of these United States are frankly weary of the doctrine that all right thinking is to be found, and only to be found, in the councils of organized labor.

Like Jeshurun of old, labor, during our period of national peril, waxed fat and kicked. The return to normal is inevitable. Special privilege cannot continue to exist under our American polity. The labor unions and their officials who seized upon the opportunity when our nation was at war to mule industry may as well awaken to that fact, for fact it is.

## Senator Penrose's Change of Front

**L**AST week was one of the most critical in American history. It will be so recognized by men who write in after years, when perspective brings into bold relief the meaning of events.

Senator Penrose had gone to Washington and carried with him the atmosphere of power. He had gone down, he broadly intimated, to put an end to what he and some metropolitan editors called the grotesque attempt to protect American agriculture. There was a sneer in his characterization of the emergency tariff measure. He did not propose to tolerate it. He intended to take his place again at the head of the Finance Committee of the Senate and from that seat of high authority drench the immediate tariff program with the cold water of his superior logic. He was speaking, it was intimated, for the great manufacturers of the nation, who intended to get out into the world markets and compete for trade, and they did not propose to do it without first bringing it about that their labor should get cheap food, no matter what happened to agriculture. Besides, Europe owed the United States so much money that tariffs could wait until it was collected.

The Senator, it is understood, was also at the capital to tell his erring conferees that the War Finance Corporation veto should be sustained. It was on Monday last that the able Pennsylvanian arrived at the Capitol. He got there in time to see the Senate override the President's veto by so huge a majority that only three Republican Senators and two Democratic Senators could be found in the upper house to assert by their votes that Secretary Houston was right.

Moreover, the Senator met with a reception in the Finance Committee that was extremely chilly. He wanted hearings on the emergency tariff bill, but the Republican Senators who have been constantly at work in Washington were already fully informed. They needed no additional information. And the war horse of the Senate was able to carry his point only by the aid of Democratic members of the committee. It was a strange alliance—Penrose and Southern Democrats.

The great cities have not known and do not know the terrific struggle through which agriculture is passing. It is altogether probable that Senator Penrose, in Philadelphia and Atlantic City, listening only to city men, was densely and wholly ignorant of the true state of affairs. It may be that the emergency tariff measure, which appeared grotesque to ignorant eyes, seemed quite otherwise to those that knew.

We care nothing for the moves of politics and politicians. We believe that in grave emergencies men of parts rise superior to politics. We do not know what the Republican leaders who went to Washington early in the week said to Senator Penrose, or what messages reached him from Senator Harding. It does not matter. For three days the fate of the country hung in the balance. Was Penrose to control the Government or was Harding? Was Penrose, as chairman of the Finance Committee of the Senate, to drive the Senate itself into advocacy and support of a policy devised to promote industrialism at the expense of the farms? Or was Senator Harding, pledged to a different course, to have the support of his own party in making his pledges operative? It is not too much to say that the fate of the Harding Administration hung on the answer. It stood in danger of being discredited even before taking office. An orientation of parties was incipient. The policy at issue was so basic, so fraught with good or evil for the nation in the generations ahead, that men of vision and political capacity had made up their minds, if

Penrose won, to begin straightway new party alignments for the adoption of the program they knew to be essential to the continued well-being of the nation.

For three days the battle raged behind the scenes in Washington. On the fourth, Senator Penrose emerged a beaten man. The lion of Monday was the lamb on Thursday. The man who on Monday had gone to the Capitol to kill the emergency tariff bill, on Thursday urged the witnesses to hurry and not waste time, for, said he, the emergency is great and this bill must go through.

There is no man in American public life whose political vision of business problems is more acute than that of Senator Penrose. It is fair to assume that no political pressure transformed him into an acrobat, but that the facts presented drove him irresistibly to repudiation of his own previous judgment. We do not believe that there is a single intelligent man in the whole United States who, if fully informed concerning agricultural conditions at this time, would or could reach any conclusion other than that reached by the Senator. One can learn a lot in three days.

We say that the verdict reached was epochal because it means that, despite the battles which are to come in the writing of the permanent tariff measure, it has been definitely decided that this nation, in the years to come, will avoid the errors of the Roman and the British empires, and that instead of a policy of cheap food to be brought in from abroad the nation will legislate for food produced at home at a cost sufficient to maintain domestic agriculture. It is a policy never before adopted by a great nation, to our knowledge, and means that this Government, profiting from the obvious error of those which have gone before, intends to institute a sensible and sane program of national development, in which neither city nor country shall be the dominant influence.

The fate of the emergency tariff bill itself is merely incidental to the main issue. It may be impossible—we hope not—to pass the bill over a Presidential veto. If so, it or an equivalent measure will be enacted promptly by the new Congress and signed by the new President. Nor are we so sure that President Wilson would veto the bill. He has taken a very strong stand in favor of the most complete protection for the dye, the chemical glass and other industries built up in America during the war. He has spoken of the wisdom of retaliatory tariffs. He has shown that the war has influenced his economics and that he believes in the use of tariff or license barriers when the need for them is obvious. If true information as to the state of the Union reaches him, we think it is a violent assumption to conclude that he will as a matter of course veto the bill. He may surprise the country by approving it, or by permitting it to become law without his approval.

In any case, the great victory has been won. It was won the instant Senator Penrose turned face. It meant that the influences arguing for cheap agricultural products, to be imported, had lost their fight. They may become active again, but only for modifications of policy. The policy itself became accepted when Senator Penrose gave up the fight.

### FINANCING THE FARMER.

**F**ORMATION of a holding corporation and the pooling of 300,000 bales of long-staple cotton to be sold through a central marketing committee by Mississippi Delta planters, at the same time issuing to the farmers of standardized receipts upon the pooled cotton, and which receipts will be accepted by the leading banks in the territory affected as collateral, would seem to be a step in the right direction. Cer-



tainly it is a move toward betterment of conditions of the cotton planter of the South.

The Soil Improvement Committee of the Southern Fertilizer Association in its first "Economy Talk," which appears in the advertising columns in the issue of the MANUFACTURERS RECORD of December 23, points out clearly one reason why the agricultural wealth of the South "does not stick." Under conditions now obtaining it cannot. Cotton as a rule is forced from the hands of the producer onto the lowest market of the year. Hundreds of millions of wealth are utterly lost to the South, the cotton passing into the hands of the New England and European manufacturer. The Southern merchant is poorer; the Southern banker is poorer, the schools and the churches of the South are more poorly supported, and the county and the State are poorer than they should be.

The prosperity of the South, an agricultural empire, is menaced or strengthened to the extent by which the farmer of the South is financed.

### REVOLUTIONIZING FACTS AS TO REFORESTATION OF CUT-OVER LANDS AND AS TO PAPER-MAKING.

ONE of the greatest economic problems which this country has been facing for years is the destruction of its forests. Millions of acres of land in the South and elsewhere lie idle following the work of the sawmill. Vast stretches of unutilized land mar the country and add nothing to its prosperity. When the timber has been once cut it has generally been accounted that, like the water which has passed over the wheel, it cannot do its work again.

For years efforts have been made to create a reforestation work on the part of large landowners. But as reforestation means years of waiting, but little progress has ever been made in this country. Indeed, many people have questioned whether the cut-over pine lands of the South, for instance, could ever be utilized for reforestation, and many efforts have been made to find some way to turn these lands into agriculture.

Combined with the decreasing timber supply, threatening the entire nation's lumber interests, has been the effect that this would necessarily have on climatic conditions and also on the nation's supply of paper. Far-reaching problems as these are, their solution has seemed impossible, but with this issue we begin a series of articles on the work of the Great Southern Lumber Co. in Louisiana, which illuminates the whole situation and gives assurance of the feasibility of reforestation and also of the profitable operation on a large commercial scale of paper mills using the waste products of pine sawmills and other pine timber generally.

A few weeks ago the MANUFACTURERS RECORD received a telegram from the Great Southern Lumber Co. that it proposed to build four more units to the lumber mill which it has had in operation for some time, and in connection therewith it would begin the reforestation of its cut-over pine land as rapidly as the timber was removed. The building of these mills alone will involve an expenditure of about \$8,000,000. As the Great Southern Lumber Co. has the largest sawmill in America, with a capacity of 1,000,000 feet a day, and owns about 550,000 acres of virgin timber land, its plan of building paper mills and the reforestation of its land seemed of sufficient importance to justify a comprehensive investigation. For this purpose the MANUFACTURERS RECORD sent Mr. Courtenay De Kalb, a distinguished chemist and technical expert, to make a special study of the whole situation in connection with this proposed work.

The scheme is so far-reaching in its ramifications and means so much in the increased paper supply of the country, in the reforestation of millions and tens of millions of acres of cut-over land and for broadening the whole industrial develop-

ment of the South, that it has seemed wise to devote three comprehensive articles, the first of which appears in this issue, written by Mr. De Kalb after a most thorough study on the ground, of all that has been accomplished by this lumber company and of all the plans which it has matured for its vast expenditures for paper-making and for its revolutionizing reforestation work. These articles will appeal with great force not only to every lumber man in the country and to every consumer of paper, but to all other people interested in the question of an adequate supply of lumber to meet the ever-expanding needs of our land.

### CUTTING OFF THE DOG'S TAIL TOO CLOSE TO HIS HEAD.

COMMENTING on the drop in prices and the demoralization of the iron trade, the Matthew Addy Company of Cincinnati says:

"When the collapse came it surprised the trade, for there had been a widespread idea that the decline to a normal level would be a long, easy and gradual affair. It has not proved to be that way. Perhaps it is just as well. If the dog's tail had to be cut off, why cut it off by inches? Better do it with one stroke."

No one who has been a reader of the MANUFACTURERS RECORD during the last twelve months should have been at all surprised at the sudden drop, for not a week passed without our warning the country of an inevitable collapse if the Federal Reserve Board continued its deflation policy. In attempting to cut off the dog's tail they cut it off just back of the ears, and there is not much left of the dog. Trimming the dog's tail might have been helpful if it had been confined exclusively to the tail, but it was disastrous to the dog to have his tail eliminated at his ears.

In the same circular-letter the Matthew Addy Company says:

"One thing is certain about 1921, and that is the old competitive conditions will be restored. It will take salesmanship to sell iron. It will take good business ability to conduct business. The careless, easy-go-lucky ways which the war brought are definitely ended. In war times 'everything went.' Business came so easy that selling was all but a lost art. Profits were so large that a 'damn-the-expense' policy was general. A few more years such as we have had, and honest, conservative business methods would have been forgotten. So, now that we know the picnic is over, the iron trade must buckle down again to hard work. These are compensating features of great value."

It is true that very lively hustling will be necessary during the coming year by every concern which expects to get its share of business. The buyers are no longer hunting the sellers. Salesmanship will once more be at a premium, but it must be real salesmanship. All the initiative and the energy which the best salesmen can develop will be essential during the competitive period which is ahead of us, when every concern that expects to prosper will have to hustle at a livelier pace than for several years. Salesmanship is not only the salesmanship of the individual, but salesmanship through the right kind of publicity work and service. Never was there a time when business needed advertising to a greater extent than it will need it during the coming twelve months. The man who fails to advertise under the impression that there is not much business to be had will not even get his share of the lessened business and be badly left, as will be the concern that drops all of its salesmen because it is afraid they cannot win expenses. There may be times when the actual scarcity of money or the inability to make collections will cause some concerns to reduce their selling force and others to reduce their advertising, but those who have to do it will be at a disadvantage in the competition which is ahead of us. The creative work of salesmanship and of publicity is the secret of work which will tell in bringing about a revival of activity.

Are

T

in c  
business  
in all  
mism a  
has not  
which l  
portanc  
the pow  
instance  
the old  
concern  
utilized  
ments f  
They p  
ments.  
terment  
Coming  
noted fo  
advertis  
we belie  
will hav  
of the  
have fo  
The l  
develop  
suburb  
an activ  
conditio  
ment th  
their se  
would l  
ing can  
the fina  
1 that  
their fo  
ing this  
sales fo  
attention  
it neces  
A more  
rising p  
One a  
penden  
it said:

"With  
wish fo  
lightly.  
share in  
the natu  
great civ  
demand,  
our wite  
stant ap  
strategy  
known  
to its pu  
"You  
an educ  
that W  
Robert  
possesse  
impossib  
and sing  
greater  
individu

penden  
it said:

"With  
wish fo  
lightly.  
share in  
the natu  
great civ  
demand,  
our wite  
stant ap  
strategy  
known  
to its pu

"You  
an educ  
that W  
Robert  
possesse  
impossib  
and sing  
greater  
individu



## Are You a Burden Bearer or a Burden Shirker in the Fight for Prosperity?

THE new year has brought forth a variety of advertising in quality and extent which augurs well for the future business interests of the country. Many of the advertisers in all parts of the country have preached the gospel of optimism and patriotism. The wording of their advertisements has not been stilted, stale or unprofitable. Many concerns which have rarely ever advertised before have seen the importance of publicity at the present time, and have realized the power of advertising in creating business sentiment. For instance, The Daniel Miller Company of Baltimore, one of the oldest and most substantial dry goods houses here, a concern which probably never before advertised largely, utilized the New Year season for attractive page advertisements in a number of leading papers throughout the South. They preached the doctrine of optimism in those advertisements. They expressed their profound conviction in the betterment of business and the future prosperity of the nation. Coming from a house established a half century or more, noted for conservatism and the fact that they probably never advertised before to a large extent in daily papers, their campaign of advertising has been extremely interesting, and we believe will not only be directly profitable to them, but will have a marked effect in changing the sentiment of many of the retail merchants of the South. Many other concerns have followed a similar line of work.

The Roland Park Company, which for 30 years has been developing near Baltimore what it regarded as the finest suburb in the United States, decided in December to begin an active advertising campaign, notwithstanding the depressed conditions. On December 3 they made the first announcement through the Baltimore daily papers that on January 1 their schedule of prices for their select residence property would be advanced 15 per cent, and continued their advertising campaign up to the first of January. Notwithstanding the financial stringency, the company announced on January 1 that on December 3, when they began this advertising, their lot sales amounted to over \$238,000, and added: "During this period it has been physically impossible for our sales force to take care of all prospective purchasers seeking attention." On account of this situation the company found it necessary to extend the time of purchase to January 10. A more striking illustration of the value of advertising and a rising price in effecting sales could scarcely be given.

One advertisement of unusual interest is that of the Independence Trust Co. of Charlottesville, in the course of which it said:

"With what spirit shall we, as a people, utter the time-honored wish for a happy and prosperous New Year? Shall we speak lightly, or back the sentiment with a silent promise to do our share in bringing it about? In this city we have the resources, the natural advantage, and the people with which to develop a great civic structure. There is only necessary the power of mental demand, the attitude of mind, whose daily pressure will whet our wits, sharpen our energies and polish our endeavor. Constant application of a means to an end gives tact, suggests strategy, inspires courage, arouses activity and develops the unknown powers within us—rounding them out and shaping them to its purpose.

"You have as much bodily strength as Roosevelt; as much of an education as John D. Rockefeller; access to the same books that Wm. Dean Howells had; as much paper, pens and ink as Robert Louis Stevenson; the same 24-hour day that the President possesses—what will they profit you in 1921? There is nothing impossible that has already been accomplished. Thrift and work and singleness of purpose if cultivated intensively, will add still greater heights to the community development and redound to individual credit. The world is calling for new books, for great

speakers, for better inventions, for successful preachers and merchants and doctors and laborers.

"So, when we open our lips to wish our friends and neighbors a prosperous New Year, let us do it with a proper understanding of the tasks ahead, appreciating the fact that **although man may fall down—now and then—he is never through until he lays down.**"

Running through many of the advertisements which have come to our attention during the past week is a similar spirit of encouragement, of enthusiasm and of facts of profound interest to people generally.

On the other hand, there have been a good many business concerns which, instead of increasing their advertising in order to benefit themselves and the country, have cut out a part or all of their publicity work on the mistaken idea that in this way they will be saving money.

B. C. Forbes, the well-known financial writer, in discussing this phase of the situation in the Philadelphia Ledger, said:

"Please cancel all our advertising, but don't say a word about it to anyone. Continue to write encouragingly and optimistically."

"That's the gist of one letter sent by a large and very strong automobile company.

"Another concern, cancelling an order, writes: 'It is necessary to husband our resources.'

"Is it not just possible that at present there is too much 'husbanding of resources' through cancellations, etc.? And is it altogether reasonable for large corporations to act panicky and expect that nothing but 'optimistic and encouraging' articles be written about business conditions?

"The way to get business and financial writers to write optimistically about conditions is to bring about conditions which justify optimism. To my mind we have now reached the point where this can be done. I believe that pessimism and pessimistic action are being carried to unnecessary and undesirable lengths.

"The truth is that prosperity or depression originates, usually, in men's minds. President Wilson once was derided for declaring that depression then prevailing was 'psychological.' The depression itself was then very real, but President Wilson was quite right in meaning that its causes had been psychological.

"If 90, or even 75, per cent of the financial and business men of America were to become convinced on January 1 that everything was ripe for an industrial and commercial boom and would proceed immediately to act energetically on that assumption, the whole outlook could be and would be transformed within 30 days.

"The conduct of thousands of business managements has been such as to intensify pessimism and alarm. They have cancelled orders right and left without rhyme or reason. They have thrown workers out of employment without stopping to think that each empty pay envelope aggravates the business depression. Also, dire forebodings have been shouted from factory-tops.

"It is rather absurd for business organizations to act panicky and at the same time request others to proclaim that all is well. All could be well, but all will not be well until those who have lost their heads regain their senses, realize that everything is not going to the demnition bow-wows and begin to act as they would like others to act and talk. 'Physician, heal thyself.'

"The new year ought to bring the turning over of a new leaf by the practitioners and prophets of hysteria. Faith has wonderful healing powers. What is needed today is not 'faith without works,' but faith and work."

The statement made by Mr. Forbes that he has been receiving letters asking that advertisements be cancelled, but that the newspapers keep on writing optimistically, throws a good deal of light upon the views of some business men whose vision is rather narrow. Men of this stamp, the moment things begin to go a little wrong, feel that they must draw within their shells, cut off expenditures which are necessary to keep their work before the public, and by this very act intensify to the extent of their ability the pessimistic spirit of the hour. Every advertisement withdrawn or reduced in size by reason of business conditions is merely a club that is used to beat business down still lower. Nothing gives a greater

impression of optimism and enthusiasm and a spirit of go-aheaditiveness than the crowded advertising pages of the newspapers and publications of the country.

The Tampa Hardware Co. of Tampa, Fla., showed its faith in advertising in these times by taking an entire section of 20 pages in the Tampa Times of last Saturday. This is possibly the largest advertisement ever carried in one paper by a Southern business house. The officials of that company believed that now was the time to prove their faith by their words and to create prosperity by publicity. Every one of the 20 pages was replete with facts about the business of the company, and with facts that proclaimed the spirit of optimism. Their example might be followed to advantage by every big concern in the South, in their local papers, despite the present dullness in trade, and this very preaching and practicing of optimism would beget activity and prosperity.

In a number of towns business men are combining to make large display advertisements to create a spirit of optimism. In the Daytona (Fla.) News, for instance, there has been appearing during the last few days a big two-page display advertisement made up from cards from the leading builders, contractors, real estate men and others urging optimism on the part of the people and immediate construction work in the erection of much-needed dwellings. Similar work, we believe, is being carried on in other sections. The opportunity is great for this kind of advertising, in direct contrast with that spirit mentioned by Mr. Forbes where men are anxious to have newspapers do all the work of optimistic preaching while they stop their work of publicity and seek to save a few dollars merely because there has been a temporary lull in business or a temporary reduction in their profits.

**There is a wise expenditure which makes for prosperity; there is a withholding which makes for poverty.**

The power of publicity well directed, persistently maintained, was demonstrated after the armistice, when, through the urgent work of the United States Government, the business people of the country began a broad campaign of advertising more comprehensive than ever before known. Almost instantly the wheels of trade began to move through the power of this publicity campaign. The same improvement could be made today if business men, through their local papers and in publications of national circulation, would carry on a similar campaign.

It is well for the newspaper to preach optimism wherever their preaching is founded on fact, but all the editorials of all the newspapers in the land proclaiming optimism would not have as great effect as would the crowded advertising columns of newspapers. The Manufacturers Record voices the belief of its editorial staff when it proclaims optimism, but if the thousand advertisers numbered among its clients were in their advertising carrying on the same kind of campaign and doing it with equal energy, their power for spreading optimism would be infinitely greater than that of the editorial pages. The same is true as to every other paper in the land. The man who withdraws advertising because of temporary slackening business has no right whatever to expect that when he fails by his acts to preach optimism other people can assume and carry on the burden which he has shirked.

The burden bearer and the shirker are the two classes in this world which come most to the front in times of danger or distress. The burden bearer is the man or the business concern or the newspaper which, with boundless faith in the future of the country, ceaselessly and without regard to immediate expense or immediate loss proclaims the gospel of hope, of activity and of coming prosperity.

The burden shirker is the concern or the individual who leaves this work to others, who steps from under the responsibility and says, "I will save my little advertising expenses and trust to others to assume my burden and do my part in

carrying on the work of bringing prosperity back to the nation and to me."

In war times the shirker was called a slacker.

It is a question whether or not in times of business depression such as the present the shirker who seeks to do less than his share, merely to save temporarily, is not a slacker in the great fight of the nation to win prosperity against the odds of existing stagnation.

If all who had been called into war had proved slackers, the victory would never have been won.

If all business men, or even a considerable proportion of them, should be shirkers, expecting the burden bearers to carry forward their own campaign and that of the shirkers, too, the victory for prosperity would never be won.

Where do you stand?

### THIS IS THE TIME—DO IT NOW!

**"T**HIS is the time when the generals of business must take off their coats, roll up their sleeves, spit on their hands and revivify every department, inside and out. One hundred per cent management must register 110 per cent and more."

"Beating the brush for business is more profitable than killing time at home."

"Business may be encouraged when it cannot be forced."

"This is the time when the business whiner should be ostracized, the grouch banished, the discouraged inspired."

"Inertia begets inertia; every complaint imagines another."

We have selected the above excerpts from a "Vital Message to Business America," an advertisement recently published in the New York Times by the Federal Advertising Agency, because they give in new guise certain underlying truths that cannot too strongly be impressed, particularly at a time when the Administration's monetary medicine men are seeking by a process of strangulation to put new life into trade.

"Spit on your hands and take fresh hold," urged the

MANUFACTURERS RECORD in its issue of November 18, 1920.

"That is the policy which all American business men, farmers, merchants, manufacturers alike must follow today."

The thoughts underlying are identical. There has been no such opportunity in recent years as is now presented for a resumption of business and a restoration to normal conditions. Building, highway and other materials have declined sharply in price, and labor is adequate to all needs. Forced deflation, the financial nostrum prescribed and administered under compulsory dosage to an astounded and humbled nation, sharply limited credit and made necessary in many instances the sale of goods for the best prices obtainable. Holders of manufactured products, determined to take up their work anew, are facing their losses, charging them mentally to the Harding-Houston brand of financial statecraft.

We in no sense minimize the vast forward steps already taken by the South in its plans for the building of steam roads and highways; the erection of new and enlargement of old plants, but more can be done. Expand and grow, and you will thereby help or compel your fellow-trader to do likewise, but—

This is the time. Do it now!

### Southern Farmer Sees Necessity for Protective Tariff.

W. C. McCLURE, McClure's Good Land Co., Demopolis, Ala.—We cannot get along without the MANUFACTURERS RECORD. Take our subscription for one year. Will remit upon receipt of bill.

Your friendship for the South is one of its greatest assets. Your politics is all right, too. I am a protective-tariff Democrat and a native of the South. Sentiment and tradition are both all right, but common sense is better. The farmer is no longer a dupe and catspaw of the demagogue and politician, nor does it square with either common sense or fairness to expect the Southern farmer even to maintain his self-respect and American standards of living, if he is to compete with a six-and-a-half-cent-per-day man of the Far East.

The fact that the value of the South's cotton crop does not amount to over one-third of the total crop value and the fast-becoming-popular idea of protection are two very hopeful signs, indeed, of the South's destiny and determination to liberate herself.

## Has America No Answer for This German Threat?

WHILE men talk about disarmament and fill the newspaper columns with learned discussions as to the wisdom of curtailing our naval program by international agreement, hour by hour the day of our real disarmament approaches, and approaches so stealthily the great public is in entire ignorance of the fact.

In the next war leaders will laugh at battleships and artillery when they launch their assaults of poison gas and invisible destruction. The machinery of warfare has passed into the hands of chemists, and the soothsayers, in predicting results, will look not to stars or entrails but into the test tubes of the laboratory.

An inkling of the truth may be obtained from a cable dispatch, written by Wythe Williams, which appeared in the Washington Herald of January 10. We quote from it:

"There is evidence in Paris, where a large force of dye experts now are gathered to help the reparations commission, that the German dye attack is to be centered most vigorously upon the United States market. France has a tariff law that enables her to build up her dye industry unmolested. England has a new law, operative January 15, that excludes dyes such as she produces and admits those she does not produce, but which her consumers need. Japan is taking steps to protect her chemical industry. The United States is the only important nation actually at the mercy of German chemists. For the moment America is protected by the War Trade Board, but this barrier will fall when she ends the technical state of war with Germany.

"German dye manufacturers, realizing this, are causing the reparations commission much trouble by refusing to produce, except under pressure, the dyes most needed in the United States. They are willing to offer large quantities of dyes in competition with the output of the new American dye industry, but still are making excuses for failure to produce noncompetitive dyes. Thus they hope to encourage consumers to demand an open market. Also, in this manner, with the experience of her 50 years' world monopoly of dye manufacture against five years of American experience, Germany hopes to throttle the American industry and leave America helpless in this respect, should there be another war.

"German production of dyes is so closely allied with her production of munitions that a separation is impossible. Destruction of one would mean the destruction of both. Students of the German proposals now in Paris consider that America is the last hope the German manufacturers have, and they will not give up as long as America does not protect its dye industry by a law similar to that of Great Britain. They see, further, that real chemical disarmament can be accomplished only by breaking Germany's monopoly of the dye industry and encouraging the building up of a similar industry in all the countries of the entente, and especially in the United States."

It is the absolute truth that the "United States is the only important nation actually at the mercy of the German chemists."

The War Trade Board, which now protects the American dye industry, will go out of existence March 4, unless funds to finance its activities are provided, and it will go out of existence anyhow so soon as peace is concluded. The dye industry, therefore, is nearing hour by hour the day when it will be at the mercy of the Germans. They will not be long. Private industry does not possess the power of taxation and cannot long stand up under heavy financial losses. If there is no inhibitory legislation, enough dyes can be dumped on our shores within a few months to swamp the market.

It is difficult to speak with moderation of those Senators who have resorted to the filibuster and every other technical device of legislators to delay and prevent enactment of the dye bill. Be their motives what they may, the fact remains that their course is exactly the course that is most acceptable to the Germans. There is no one thing Berlin more desires than the failure of the Longworth bill. Men who shape their course in Congress so as to support a policy obviously beneficial to our enemies and destructive to the United States necessarily are objects of suspicion. Men are judged not by

their motives, but by the things they do, and when the things they do are fatal to the future well-being of their country, they must expect criticism. This is more than ever true when they obstruct the majority and employ their technical power of delay to prevent an enactment favored not only by the House of Representatives and recommended by the President, but also favored by a large majority in the Senate itself.

There is history back of this entire situation. The statesmen who went to Paris to write the Peace Treaty were well aware that a mere physical disarmament of Germany would be a grotesque provision against the later attack by that nation. They favored not merely the destruction of the German navy and the disbandment of the German army, but they also expected to compel the Germans to disclose their chemical secrets, vital in warfare, and the dismantlement of huge chemical works was contemplated. This essential and wise course was prevented by President Wilson, who advanced the idea that the Allies and the United States could adequately protect themselves by building up their own chemical industries, shutting out the German product. He favored compelling the Germans to disclose their chemical secrets, which they have not done, but he wanted each individual nation to protect itself.

That is what all of the chief Allies and neutral nations have done—all except the United States. Over in England the Government listened to all the arguments against protection of the British dye industry and then promptly enacted, last month, the most drastic sort of legislation to assure absolutely that the German chemical industry would not ruin that of Great Britain. She carried out the understanding that had been reached in Paris. It is more than passing strange, however, that every effort to carry out the same understanding in the United States has been prevented by filibusters or threats of filibusters in the Senate. It is amazing, but it is true.

It is a fact that the Germans have not yet yielded up their war method of extracting nitrogen from the air. The methods we have are obsolete, and we know it. But the final Haber process we have not got. It will be got, in one way or another, but it has not yet been got.

If gentlemen wish to continue the argument on the dye bill let them do so, but not with the gates open. The barriers must at least be kept up until a definite decision has been reached. This can be done by passage of a joint resolution extending the authority of the War Trade Board and providing funds wherewith to support it. The Longworth bill itself ought to be passed. It is the sensible and proper course. But, failing that, the next best course is emergency protection of the chemical industry pending a final decision by the next Congress on a definite national policy.

The absolutely essential character of the dye industry in relation to national defense is not a question of conjecture or of theory. It has been demonstrated with mathematical accuracy, and it can be so demonstrated at any time, before any committee or any jury. Indeed, it is admitted even by the opponents of the Longworth bill. They claim, however, that the industry can be protected adequately by tariffs. The facts are all against them. Tariffs are for honest men, in pure commerce. Control of the American dye market by the Germans is not inherently a commercial undertaking at all. Germany can afford to give away dyes in America if by so doing she can destroy the American dye industry. Dyes, with her, is preparedness for war. Dyes, with us, can be nothing else.

We would be safer without a gun factory in the nation, a powder plant or a warship than without a chemical industry and a chemical personnel equal to any others on earth.



## THE KANSAS INDUSTRIAL COURT DECISION AND ITS POSSIBLE EFFECT ON INDUSTRY.

**T**HE recent decision of the Kansas Industrial Court, which was interpreted by the Associated Press dispatches as indicating that industrial plants must continue in operation even when there is no demand for their products in order to give work to their employees, has attracted very wide attention throughout the country. The decision was not as first reported. It needs, however, to be carefully studied.

In the course of this decision the Court said:

"A very important question connected with the matter before us is its effect upon labor. The people of Kansas have solemnly declared by legislative act that workers engaged in this industry shall at all times receive a fair wage and have healthful and moral surroundings. In the reduction of the hours of operation, therefore, the millers should be very careful and solicitous concerning the matter of labor. Skilled and faithful employees should be given such treatment as will enable them during the period of limited production to support themselves and families.

"Let us suppose that a flour mill regularly employs 50 men. Let us say that, under conditions like those which the Kansas millers are now facing, they are unable to run their mills full time. We will say that 35 of the 50 men they had employed are men who are skilled, who have been faithful in the performance of their duties and who are essential to the operation of the mill under normal conditions. Then it is up to the mill management to provide these 35 men with work and keep them and their families going until such time as they again become essential in the operation of the mill and in the production of necessities.

"The evidence before us shows that in the Topeka mills skilled men in the milling business are being paid a monthly wage, and therefore are drawing pay whether the mill is running or not. So far as it is possible to do so, this rule should be recognized in all the mills of the State, for it is necessary in the promotion of the general welfare that skilled and faithful workers should always be available for these essentials, which so vitally affect the living conditions of the people."

If this decision should be sustained by the higher courts, the effect would be very different from that which has generally been mentioned in newspaper discussions. Most of those which have come to our attention indicate that the decision of the court would mean that faithful employees must be kept on the pay roll even when there is no demand for the product of their labor. As important as it is that men should have regularity of employment and especially the efficient, faithful workers, and as heartily as we approve of every effort which can make this effective without destroying the capital upon which the success of the business depends, it should be borne in mind that the only possible way of achieving this result would be by putting the increased cost on the ultimate consumer. If employers of labor must at all times keep on their pay roll their faithful workers even when their plants are idle for lack of orders, it will be absolutely necessary for them to add to the selling price of their product a profit sufficiently great to lay aside a surplus for the payment of employees while the factory is closed. This would mean a large increase in price to the general consumers, and in all probability the increase in price would, in many cases, be greater than the actual average outlay which might be required to keep men employed, for on the basis of such uncertainty as to the length of time when employees might be out of work, employers would of necessity have to accumulate a very large surplus in order to meet the uncertainties of the future. Except on this basis it would be impossible for the hope of the Kansas Industrial Court to be put into effect. Very few industries are sufficiently profitable to enable full payment to be made to efficient workers when business conditions necessarily compel the plants to be closed.

It sometimes happens that plants are run at a dead loss because it is cheaper to keep the labor employed than it is to reorganize their forces when good times come, but not many industries could do this for any great length of time without destroying any chance of resuming operations be-

cause of absolute bankruptcy. If the public demands that the views of the Kansas Industrial Court shall be carried into effect, then the public must be prepared to pay the higher cost involved for all the products of all industries.

There are certain fundamental laws in the world's economic conditions which cannot possibly be set aside except that in the final analysis the public pays the price.

## LET THE GUARANTY TO THE RAILROADS BE MADE GOOD AT ONCE.

**T**HERE has been imposed upon Congress by the decision of the Supreme Court of the District of Columbia upholding the ruling of the Comptroller of the Treasury in the matter of partial payments of the \$400,000,000 due to the railroads under the guaranty clause of the Transportation Act the duty of immediately enacting legislation that will enable the payments of these moneys.

The \$400,000,000 due to the railroads is part of the operating deficit for all roads which accrued during the guaranty period from March 1 to September 1, 1920, the first six months after the roads were returned to private operation.

The total amount of operating deficit for all roads during that period was about \$634,000,000. Of this amount approximately \$234,000,000 was paid to the carriers during the guaranty period. The law specifically provided for advances during the first six months after their return to private operation, but, according to the ruling of the Treasury, made no such provision at the end of the period.

With the interpretation of the act as written by the Comptroller and by the District Supreme Court, we have nothing to do. It is fait accompli. Relief by appeal through the courts, while possible, is a matter of time.

That there was a realization in the minds of Congress when the law was enacted that these roads were entitled to payment is clear beyond cavil. That the money is in part now due is certified to by the Interstate Commerce Commission. Whether it shall be paid when asked for by the railroads, and approved by the Interstate Commerce Commission, or at some time deemed convenient by the Treasury officials of the United States is a matter unfortunately by reason of the language of the act a subject for debate. But with the extraordinary capacity for discovering means of hamstringing and handicapping development that the at present constituted Treasury personnel generally manifests they have elected to withhold those moneys long overdue and in some instances desperately needed.

The Congress should at once enact supplemental legislation that will give to the railroads the moneys due them.

The Chamber of Commerce of the United States has adopted the following resolution in which we most heartily concur:

"That, if it is found to be necessary to amend the provisions of Section 209 of the Transportation Act, 1920, in order to authorize partial payments on account of the guaranty therein made to the railroads of the United States pending the final ascertainment of the full amount of such guaranty due to the several carriers, the United States Chamber of Commerce earnestly approves an appropriate amendment of said Act by the Congress at its coming December session, with as little delay as possible."

## A Medium of Enlightenment and Education.

JOHN S. ALDENHOFF, Dallas, Tex.—I am glad to hand you herewith New York Exchange, your order, \$6.50, covering year's subscription to MANUFACTURERS RECORD from January 29.

I regard the MANUFACTURERS RECORD as a great medium of education and enlightenment, intensely patriotic, striving to bring out the very best that is in America for Americans. If every publication strove as earnestly to uphold America and all its institutions as you, there would be a few isms and fewer divisions in public sentiment, and we would go forward as a mighty whole.



## High Wages a National Blessing, Not a Curse

BUT, regardless of the question of fault, it is not proper that a hodcarrier should be paid more than a high-grade teacher, and the proper level of appreciation of work will never be reached until there is a good deal of unemployment. The war disturbed the proper level, and now that it is over we should get back to it as a matter of justice to those who have suffered from a lack of appreciation. We speak of this as a matter of appreciation, for appreciation is not honestly expressed except in dollars and cents. If an employe pays one man \$1500 a year and another \$3000, he appreciates the \$3000 man just twice as much as the \$1500 man, or he is robbing somebody or showing favoritism to somebody.

We are coming down from the pinnacle of high prices and we must continue to descend. All classes must take their losses as most classes enjoyed their gains. If unemployment is necessary for a return to the proper level, unemployment is a necessary evil. If smaller profits or no profits are necessary, then smaller profits or no profits at all are for the general good.—Jacksonville Times-Union.

In the foregoing extract from an editorial headed "Descending From the Summit," the Times-Union very properly takes the ground that a good teacher should be paid more than a hodcarrier. That, however, does not necessarily mean that hodcarriers' wages should be reduced or that the world is any better for the reduction of wages of the hodcarrier and the laboring classes generally. The salary of the preacher and teacher and the clerk should be advanced above that of the hodcarrier. Brain work should command higher wages than purely manual labor, but the great trouble with the world has been the inadequate wages and salaries paid to all classes. It was not the "proper level" which was disturbed by the war and to which we should get back, as suggested by the Times-Union, but it was an improper level of low wages which was disturbed by the war. The war helped to waken the world to the importance of high wages, and we trust that never again will wages sink to the level of the past. There will be far more general prosperity and general happiness if the average wages of the day laborer and the mechanic which have prevailed during the past two years should continue indefinitely through the coming years, and the salaries of the school teacher and the preacher and other salaried men and women be raised proportionately. There should be no desire to break down the wages of the laboring people merely because their pay is higher than that of the brain worker. It would be infinitely better to raise the pay of the brain worker.

The Times-Union says that if an employer pays one man \$1500 a year and another \$3000 a year, he appreciates the \$3000 man twice as much as the \$1500 man, or he is robbing somebody or showing favoritism to somebody. That view is entirely incorrect, except, perhaps, in very rare cases. An employer is, very generally, to the best of his ability, trying to pay men in proportion to the service rendered. A man may be worth \$3000 or \$10,000 a year to a far greater extent than another man is worth \$1500. A \$10,000 man or a \$50,000 man, for that matter, may be yielding to his employer a far greater return on the outlay than his \$1500 man in proportion. No employer wants to show favoritism, and, as a matter of fact, the great majority of employers have no favoritism among the people they employ, unless the favoritism be won by the service and the work of the employe. Take a concern which employs 50 to 5000 men, and it will be found that a very large proportion of them lack initiative or judgment and cannot be depended upon "to deliver the message to Garcia." All the persuasion or encouragement or help that can be given to stimulate the inefficient people of that class

will generally prove a failure. They cannot apparently rise to their opportunity or will not do so. On the other hand, other employes will be energetic, tireless in their work, ready to meet any emergency or to develop to any responsibility. One man is born to mental or physical ill-health; one man is born to physical or mental abounding vitality. No man can explain the reason for the one or the other. The same thing holds true in the employment world, because a man in an office who demonstrates his capacity, creates work, creates profit for the business and shows that he has the inherent strength for measuring up to the increasing responsibility may be advanced to higher positions while another man lacking these qualities or lacking the concentration of effort grumbles because he is not advanced.

The whole story is illustrated in the case which we have once before quoted. A young man came out of a Baltimore school with only the moderate education of the lower grades of a public school. He was poor, his family was inconspicuous. He had no one to push him forward. His personality was not overly attractive, but within a comparatively few years after he had entered a big banking-house as one of the lowest clerks in the place he became the cashier. He was asked by the writer how it happened that he had advanced over all of the men who had been there years before him and who had social and financial influences connected with the bank, which might have helped to push them forward. His reply in substance was this:

"When I finished my own work I was always ready to help out anybody else. When other clerks wanted to get off for amusement I always took their job for the day if they wished me to do so. I sought to know everything about my own business and was willing to learn anything about the work of the bank, while most of those who were working in the same department were content merely to get through their own job and to know nothing else about the bank's affairs. A crisis came in a big panic when it so happened that I knew more about some important loans than any other man in the bank except the cashier, and he was sick, merely because I knew more about the books than any other one man, since I had made a business of trying to study the entire operations of the bank. I reported to the president some of the important loans that might be endangered by rumors in the financial world. I was commissioned to go out and secure additional collateral or collect the loans if possible. The cashier died, and merely because I knew more about the general affairs of the institution than anyone else I was elected to fill his place."

Every other clerk in that institution had had as good an opportunity as this one to know the bank's business. Most of them had spent their time outside of their immediate work either in idleness or in amusement. This young man determined to know everything about the business with which he was connected, regardless of the hours of labor which might be required. His advance to a higher salary and position came not from favoritism nor from the robbing of some clerks in order to pay a higher salary to him. His advancement came wholly because he had fitted himself, as Charles Schwab has advised everyone to do, "to be ready for the job ahead." No man knows when the job ahead is coming. It may be long delayed or it may come at any moment. It is important to be ready for it.

The Times-Union also suggests that we must continue to descend from the pinnacle of high prices. We do not believe that that is a necessary thing or a wise thing. Perchance, it may to some extent be intensified by reason of the continued mismanagement of the financial interests of the country, but in a country as marvelously rich as is America in natural resources there ought to be profitable work for every man and woman in it, and there would be if all interests were rightly managed and if the financial institutions of the country did not sometimes make their fearful blunders and destroy credit, and thus bring about wreck and ruin.

## A Tribute As Unique and Original As Unusual

*[The personal character of the following letter has made us hesitate to publish it, but the viewpoint that a newspaper gives exactly the same service to every reader, and that everyone gets the utmost working value of every member of the staff, is so original and interesting that we feel justified in using it that others may see the whole matter as measured from Mr. Crawford's standpoint.—Editor Manufacturers Record.]*

### PRESBYTERIAN HOSPITAL.

New Orleans, La., December 10.

Editor Manufacturers Record:

With this letter I send you \$6.50 to pay for one year's subscription to the Manufacturers Record.

This is an investment which I am induced to make for business reasons. The more I think about it the more dominant is my conviction that it is an investment which will be to me of great value. As I see it, this is what I will get for \$6.50:

Mr. Richard H. Edmonds, the editor-in-chief, is a towering leader of Christianized Americanism, and his best thought, his conscientious, ceaseless labor is given to the Manufacturers Record. I will get one year of Mr. Edmonds' work for my investment of \$6.50.

Mr. Albert Phenix, Mr. Frank Gould, Mr. V. H. Power, Mr. I. S. Field—all of whom I know to be good men and true and dominated by an impelling faith in the potentiality of the Manufacturers Record for good—will be working for me for a whole year for \$6.50.

In fact, all of the working force of the Manufacturers Record, intellectually trained—10, 20 and some 30 years—the individual efficiency of each one of which is shown by any copy of the Manufacturers Record, will give me one year of their time and product.

It is as if each and all of these men will work for me only. I am in on the ground floor. I have not the slightest fear that they will give to anyone else any more for his \$6.50 than I will get. I am sure I will not be slighted in material or finish of product.

No person can get more out of the Manufacturers Record than I can unless he reads it better than I do, and that is entirely up to me.

That reminds me that when I finished reading the copy of November 25, as it dropped in my lap and I lay back with my hands under my head thinking, I said to myself, "that is the best copy of the Manufacturers Record I ever read."

It perhaps is not, but I read it better. I am convalescing in a hospital and have had plenty of time, and I read many of the articles several times, and read them with thought.

The Manufacturers Record is not written altogether for those who agree with it. As Sam Jones used to say, they don't need the front seats. The Manufacturers Record is the strong flashlight which shows the right way to the sturdy traveler who is going wrong. And, best value of all for my \$6.50, it is the spur on the boot for the American who is going slow.

The most useful part of the Manufacturers Record

is its strong patriotism. There are degrees of patriotism, but the Manufacturers Record has only one degree—supreme faith; therefore, supreme loyalty; America, the greatest nation, and the South, the greatest part of the greatest nation. The Manufacturers Record's Americanism is an inspiration.

I am a farmer, and when I can't borrow enough of the mountain of hoarded gold of my Government's banks to return to my friends the money they loaned me to make and save my bountiful crops of corn, I need some of that inspiration.

The paid managers of the Government banks say: "We cannot loan you money which will enable you to hold your corn out of the market." I wonder how much money they are loaning to professional speculators to hold corn out of the market? Let me state my case, and it is actual. If I could today, December 10, borrow just as much money as I put in cash in my crop, I would invest it all in shoats and sows, and next August, when hogs are always worth the most, I would have lots of fat hogs fed on 50-cent corn and swarms of fat pigs raised on my natural pyfeen pasture.

That is not dangerous speculation; it is safe and sane business. I wish the figures representing the total number of farmers in just my fix could be burned in the top of the desk of the head of the Federal Reserve Board.

It is worth \$6.50 for me to read in the Manufacturers Record "This Nation Is As Strong As a Young Horse. Never Has the Nation Possessed the Assets of Prosperity in Such Abundant Volume As Now."

I know there is nothing the matter with the soil or the sunshine or the rains. The farmers are all right. They do not want charity, nor do they need advice. What they want is information (there is a lot of difference between advice and information). The farmers want some one to tell them where they can get the money on good security to buy seed to plant and gasoline for the tractor while it is yet time to plow for next season's crop.

I have an unswerving, abiding faith in the wisdom of the American people. In the tides of our humanics they have always found the light of right and followed it with strength increased with each step. And in the forefront I have always found the Manufacturers Record crying, "Come up higher!"

I am delightfully satisfied to be enrolled in the America-loving hosts of the Manufacturers Record, and at so little cost.

O. W. CRAWFORD,  
Paradis, La.

## HIGH RAILROAD FREIGHT RATES AND THE PANAMA CANAL ROUTE.

THAT high freight rates are not always conducive to the greatest degree of railroad prosperity is indicated in a letter from E. H. Lang, western traffic manager of the Anaconda Copper Mining Co. to the executive director of the Great Lakes-St. Lawrence Tidewater Association of Duluth, in the course of which Mr. Lang states that his company is now shipping copper and zinc from Butte to New York via Seattle and the Panama Canal, a distance of 7000 miles, against an all rail route to New York of approximately 2500 miles. In his letter Mr. Lang said:

"The rates are as follows: All rail, \$22 per ton; lake and rail, \$20.93½; rail rate Butte to Puget Sound is \$7.87½; rate Seattle to New York is somewhat of an uncertain factor, depending entirely upon the available bottoms.

"The present rate however is 40 cents per cwt. There has been some reduction in these rates recently, and at the present time I am unable to say just what the rate is, but I should say it would vary from \$5 to \$8 per ton, depending largely on the available tonnage.

"A route from Duluth such as is anticipated via the Great Lakes-St. Lawrence Tidewater Association would afford us a more attractive rate than across the Rocky Mountains, Cascades and through the Panama Canal."

In commenting on Mr. Lang's letter, Mr. Charles P. Craig, vice-president and executive director of the Great Lakes-St. Lawrence Tidewater Association, writes:

"I am enclosing a very comprehensive statement from the traffic manager of the Anaconda. Since the recent rate advance this letter shows that the influence of the coastwise trade between the Pacific and the Atlantic has been pushed back over the Rocky Mountains, so that the shortest road from Great Falls, Mont., to Perth Amboy, N. J., is by way of Puget Sound and Panama.

"The result is to leave the interior basin, as it were, marooned, the one part of the continent that does not enjoy the benefit of low cost transportation. It is coming in our minds to occupy the place of economic right."

The shipment of copper and zinc from Seattle through the Panama Canal to the North Atlantic Coast in place of the direct route of about one-third the distance is an indication of the tremendous value of the Panama Canal to this country. When American coastwise traffic has been freed from all tolls the value of this route will be still further augmented.

The strip of land through which the Panama Canal is built is a part of the territory of this country. It does not seem possible that any reasonable man can argue that we have not a perfect right to send our coastwise trade from the Atlantic to the Pacific and vice versa through this canal without any burdensome tolls.

Many years ago when Senator Morgan was working so vigorously for the building of an Isthmian Canal the proposition was made to him that it should be specifically agreed that all American tonnage should pass through the canal free of toll. This suggestion met with the enthusiastic commendation of Senator Morgan, and was widely published at the time. The American people built the canal with the distinct understanding that they were paying for their own enterprise with the absolute right to control that enterprise and the right to say upon what terms the vessels of any other nation should be allowed to pass through the canal.

The New York Herald, in commenting upon this situation, quotes a letter from Colonel Roosevelt written while serving as Governor of New York State, in the course of which he wrote:

"I most earnestly hope that the pending treaty concerning the Isthmian Canal will not be ratified unless amended so as to provide that the canal when built shall be wholly under the control of the United States alike in peace and war. This

seems to me vital no less from the standpoint of our sea power than from the standpoint of the Monroe Doctrine."

In discussing this letter from Colonel Roosevelt, the Herald added:

"These prescient words contained the kernel of the canal question. It was vital to the national safety in the strategic sense, and also to the permanence of the principle which the Monroe Doctrine embodies, that the canal should be wholly under the control of the United States alike in peace and war.

"It is not necessary to recall the history of that long and momentous controversy. The result was the substitution of a new treaty, which Secretary Hay negotiated, with the acquiescence and entire good will of Great Britain, and which was ratified by the Senate a year or two later.

"In the compact which stands today the restriction against fortifications commanding the canal or the waters adjacent was entirely eliminated. The original provision which would have prevented the United States from closing the canal, even against an enemy in a war to which we were a party, disappeared from the text. The right to defend our own canal, furthermore, was expressly recognized in the declaration that the United States should be at liberty 'to maintain such military police along the canal as may be necessary to protect it against lawlessness and disorder.' The significant change, however, was the deliberate omission, with England's assent, of the prohibition of forts commanding the canal or near its approaches.

"All this, as we have said, with the perfect understanding and friendly acquiescence of the British Government, the one power on earth that had the right to say a word about the matter, and that only because of our entanglement in the foolish Clayton-Bulwer convention of 1850.

"How exact was Colonel Roosevelt's prevision! Senator Harding must have been impressed with it on his recent visit to and inspection of the American canal—American alike in peace and war."

If the interpretation put upon the treaty by some people were correct, then the United States Government would be compelled to allow the warships as well as the merchant ships of every other nation exactly the same right to pass through the canal that it gives to its own ships. No statesman would for a moment agree to the view that the United States could be expected to do this legally or ethically and no one can for a moment imagine that in the event of war we would throw open to the passage of our enemy warships the Panama Canal. Yet the very treaty which some interpret as saying that we cannot give free tolls to our own merchant ships would compel us to give free and unobstructed passage to the warships of other nations if we were at war with them. Had Great Britain accepted that interpretation it would have unquestionably protested against the fortification of the canal. The fact that Great Britain made no protest when we undertook the fortification of the canal is proof conclusive that Great Britain at that time never for a moment interpreted the wording of the treaty as meaning that we should give exactly the same privilege for war and merchant vessels of every nation on earth as we required for ourselves.

Freeing the Panama Canal from all tolls would greatly stimulate trade between the Atlantic and Pacific Coasts and the building of the proposed St. Lawrence Canal would open up from the Central West another route for water transportation through the Lakes and down to the Atlantic Coast. Both of these undertakings deserve the most careful consideration of the people of the whole country.

### A Good Textbook.

THE ROUZER GARAGE Co., Salisbury, N. C.—We are pleased to inclose herewith check for \$6.50 for the renewal of our subscription to the MANUFACTURERS RECORD. The writer appreciates very much the constructive work which you are doing in the MANUFACTURERS RECORD. We not only read your articles, but we study them. It is a good textbook.

### Evidently He Likes It.

W. H. MARBLE, Pittsburgh, Pa.—I subscribed just as an advertiser. Contract was terminated. I read the MANUFACTURERS RECORD faithfully. Don't you dare stop it.



# Review of 1920 Building Construction in the South

REPORTS FROM REPRESENTATIVE SOUTHERN CITIES SHOW SPLENDID WORK ACCOMPLISHED IN PAST 12 MONTHS AND PRESENT ENCOURAGING OUTLOOK FOR COMING YEAR.

A comparison of the total money represented by building permits issued during the past year and during 1919 in representative Southern cities shows that construction activities for the year just ended were above those during the preceding year, considering the amount of money involved. Despite the general slump during the last few months of 1920, the total for the year shows the widespread industrial and building program under way.

Construction work in 1920 started off with a rush because of the launching of long-delayed projects and the carry-over from 1919, which was a big building year, as evidenced by the number of permits issued and the amount of money represented. This advantage more than offsets the slump caused by failure to launch new projects in volume during the last part of 1920. On the other hand, the year 1919 was at a disadvantage, having no such large carry-over from the previous year, because building operations suffered a slump during almost the whole of 1918.

The building activity, as shown by the classified lists issued by the various cities, was widespread, and not confined to any one particular class of buildings. Many residences were included in the permits, also churches, schools, theaters, office buildings, business houses and industrial buildings of all kinds. Improvements costing millions of dollars were made to properties throughout the South during the year, including residences, office buildings, business houses and industrial plant buildings, demonstrating the well-rounded forward movement in the section in practically every line of development.

Reports from the various cities indicate that unless unforeseen conditions intervene, this year will witness the biggest building campaign in the history of the section. Materials are cheaper and more plentiful, labor is easier to obtain and cheaper, and withal more productive, and the potential building demand is greater than ever before.

## Atlanta Building Activity Shows Increase Over 1919.

Atlanta, Ga., January 10—[Special.]—A summary of activities in this city shows that in 1920 permits representing improvements and new buildings to cost \$13,372,666 were issued as compared with a total of \$10,442,739 in 1919. During 1920 a total of 2618 permits were issued for 543 frame dwellings to cost \$2,672,658, 9 brick dwellings to cost \$116,300, 39 apartment-houses to cost \$1,579,000, 11 churches at \$274,800, 11 factories at \$294,400, 69 frame business houses at \$210,000, 124 brick business houses at \$4,343,850 and 9 public buildings to cost \$1,188,860.

The number of permits issued in 1919 exceeded those issued in 1920, a total of 3022 permits being obtained, including 661 frame dwellings estimated to cost \$2,874,836, 27 brick dwellings at \$137,750, 63 apartment-houses to cost \$1,865,000, 8 church buildings costing \$2,400, 13 factories at \$804,500, 46 frame business houses involving an expenditure of \$55,860, 108 brick business houses to cost \$2,586,025 and 3 public buildings to cost \$610,000.

## Asheville Smashes Building Records and Reduces Fire Losses.

Asheville, N. C., January 8—[Special.]—All building records for this city have been broken by figures for 1920, in which a grand total of \$1,406,166 was recorded, beating by over \$300,000 the banner year 1916, when \$1,102,000 was recorded. An increase of more than \$500,000 over 1919 is shown.

In reducing fire losses a splendid record was established. The loss of 1919, which amounted to \$101,824, was cut by over \$40,000. The addition of much new equipment and installation of a modern signal system.

## Augusta Building Progress Makes Big Strides.

Augusta, Ga., January 10—[Special.]—Permits issued in this city during 1920 are \$518,842 in excess of the permits issued in 1919. The cost of new work for which permits were issued was \$1,909,258 as compared with \$1,390,416 in 1919. A total of 2065 permits was issued for alterations, repairs, additions and for new construction. For new work 269 permits, involving the expenditure of \$1,106,343, were issued, the remainder being for alterations, additions and improvements. In addition, 290 permits were issued for replacing shingle roofs with composition, slate or metal roofs. Despite the general slackening of building operations, permits for work amounting to \$82,409 were issued in December.

## Columbus (Ga.) Building Activities Nearly Doubled.

Columbus, Ga., January 8—[Special.]—During 1920 74 building permits, representing new buildings and improvements to cost \$724,925, were issued as compared with 73 in 1919 for expenditures of \$389,630, according to Schley Gordy, superintendent of public works.

## Birmingham Shows Increase of Over \$450,000.

Birmingham, Ala., January 10—[Special.]—Building operations totaling \$4,436,492 were started or carried out during 1920 in this city, according to figures of the Inspector of Buildings' office, as compared with a total of \$3,696,315, representing cost of improvements and new buildings for which permits were issued in 1919.

All records for building were broken during 1920, the number of permits issued being 4450 as compared with 4399 for 1919. August holds the high record for 1920, the amount of money involved in permits issued during the month amounting to \$576,155 for 406 permits. There were no very large permits issued during the year, and officials of the city believe that this indicates a healthy resumption of ordinary building operations. A large percentage of the permits were for residences of moderate prices and small business houses.

## Charleston Building Activities Large.

Charleston, W. Va., January 10—[Special.]—Building permits issued here during 1920 were about \$18,000 less than the total for 1919. During the past year 341 permits for work to cost \$1,162,758 were issued as compared with the previous year's total of \$1,180,500.

More permits were issued in April than during any month in the year, 62 being issued in that month, but the total value for August permits exceeded it, reaching the high figure of \$291,635. The building activities were widespread, but included a number of large projects, among them being the Lange-Crist box factory, \$100,000; the Junior High School, \$225,000; the Elk mausoleum, \$135,000, and an addition to the Palace Furniture Co., \$75,000.

## Charlotte Building Activities of 1920 Surpass Records of Previous Year.

Charlotte, N. C., January 10—[Special.]—A total of \$2,303,590 is represented by the 297 building permits issued here during the past year. New residences topped the list with a value of \$556,850, and manufacturing and industrial plants came next with \$418,025. Business houses built during 1920 cost \$384,630, and garages \$225,480, and new churches amounted to \$28,000.

July and August were the best months for home construction, permits being issued in July for residences to cost \$70,200 and in August for \$68,200. January residence permits amounted to \$61,500.

During 1919 236 permits were issued for new construction and alterations to cost \$1,480,554, against \$2,303,580 for 1920.

Outstanding permits for the year included: The Standard Bonded Warehouse, \$200,000; Charlotte Realty office building, \$60,000; residence in Myers Park, \$300,000; Savona Manufacturing Co., \$40,000; E. D. Latta, garage, \$60,000; addition to Charlotte Sanitarium, \$30,000; Robert Lassiter, residence, \$35,000; C. C. Codrington, garage, \$40,000, and high school addition, \$55,000.

## Dallas Building Holds Up Well.

Dallas, Tex., January 10—[Special.]—Although building activity slackened during the last few weeks, the new construction for 1920 will almost equal that of the previous year. Up to December 25 the total for the year was \$13,595,157, compared with a total of \$11,257,520 for 1919. The reports for the two years show that activity was greatest during the last months of 1919 and the early months of 1920.

## Durham Building Activities in 1920 More Than \$800,000 Above 1919.

Durham, N. C., January 10—[Special.]—Building operations in 1920 as indicated by permits issued here amounted to a total of \$1,428,421 as compared with a total of \$615,345 in 1919. April was the banner month of the year, \$644,175 being the cost of improvements for which permits were issued. During 1920 164 permits were issued as compared with 153 in 1919. In 1918 the value represented by 81 permits issued was \$224,385, and this demonstrates the rapid growth of the city.

John T. Still, City Building Inspector, advises the MANUFACTURERS RECORD that among the principal buildings for which permits were issued during the past year are included: N. C. Mutual Insurance Co., \$150,000; Liggett & Myers Tobacco Co., \$90,000; Durham Hosiery Mills, new silk mill and dyehouse, \$285,000; Carnegie public library, \$33,000, and a Jewish synagogue, \$30,000.

## Huntington Building Operations Near \$2,400,000.

Huntington, W. Va., January 10—[Special.]—This city's building program during 1920 called for expenditures totaling \$2,399,069, mostly for residences, according to a report just issued by W. B. Smith, Inspector of Buildings. With the exception of the Hyman building, rebuilding the Morrison store and several other buildings on Fourth avenue, practically all of the 978 individual permits were for dwellings. The building was not confined to any one particular section, but was scattered throughout the city. Few apartment houses were erected according to the report. About 50 permits were issued for business houses.

The total value represented by permits fell about \$20,000 below the total for 1919. The number of permits for the two years was about equal.

One of the biggest building programs in the history of the city is expected to be fulfilled during 1921. During the past week 20 permits have been issued for homes, garages and outbuildings. Plans are being prepared for a number of large plants, business buildings and other large structures that will be started as soon as conditions permit.

## Knoxville Building Activities Show Slight Decrease.

Knoxville, Tenn., January 8—[Special.]—Building permits for 1920 were slightly below those of 1919, the totals for the two years being \$2,479,041 and \$2,645,213, respectively, and the number of permits 958 and 1061. During 1919 permits were obtained for two large buildings for the university group.



**Jacksonville Building Operations Show Slight Decline.**

Jacksonville, Fla., January 10.—[Special.]—Building activities as represented by building permits issued are slightly less in 1920 than during 1919. During the past year a total of 2637 permits was issued for new work and miscellaneous alterations, etc., to cost \$3,512,761, compared with 2528 permits in 1919 for work to cost approximately \$3,642,734. The work in 1920 represented 495 major permits for work to cost \$3,013,839, and 2142 miscellaneous permits for work to cost \$498,922. In 1919 major permits totalling 619 were issued for work to cost \$3,412,365, and 1909 for miscellaneous work costing \$230,369.

**Lagrange Building Involves \$1,300,000 Expenditure.**

Lagrange, Ga., January 10.—[Special.]—During the past year permits were issued for improvements and new buildings to cost more than \$1,300,000, according to C. W. Corless, Building Inspector here. This is the first year that any records have been kept of building operations. During the year 206 permits were issued for new dwellings to cost \$765,230, and 48 permits to repair dwellings were issued to cost \$31,415. Two hundred residences were rebuilt at a cost of \$190,000. New store buildings to cost \$39,150 were approved, and new church buildings costing \$36,700 were provided for. Manufacturing enterprises requested permits for work to cost \$220,000.

**Little Rock Building Permits Total More Than \$4,000,000.**

Little Rock, Ark., January 10.—[Special.]—Building permits issued in 1920 in this city had a total value of nearly \$2,000,000 above the previous year. During 1920 1803 permits were issued for new buildings and improvements to established structures with a cost of approximately \$4,323,433, while in 1919 a total of 1323 permits was issued for work to cost \$2,606,000. The department of public works of the city has building permits divided into two classes, namely, inside fire limits and outside fire limits, the first applying to all business houses and the other to residences and similar structures. During the past year 345 permits were issued for structures to cost \$2,064,927 of business house character and 1454 were issued for improvements to cost \$1,673,506. During 1919 the number of permits issued for business houses, etc., amounted to \$858,848, while 903 permits were obtained for buildings outside this classification to cost \$1,837,242.

**Louisville 1920 Building Operations Show Over \$3,000,000 Increase.**

Louisville, Ky., January 10.—[Special.]—Building operations in this city during 1920 exceeded those of the preceding year by \$3,182,039, according to an announcement just made by the city building department. The total number of permits for the year, 9470, represented new buildings and improvements to cost approximately \$8,622,152, including repairs, plumbing and electrical fixtures. Permits for repairs and new buildings alone for the year amounted to an expenditure of \$6,986,260, which was more than \$2,845,546 above the amount spent for similar work in 1919. A total of 415 permits for residences was issued during 1920, 394 of these being frame structures and 21 brick dwellings. The frame structures represent a total cost of \$1,777,200, while those of brick will cost \$322,200.

In the opinion of members of the building department operations during 1921 will far exceed those of the previous year because of the recent decrease in prices of building materials and more abundant supply of labor, and the fact that hundreds of people have been waiting for conditions to change favorably so that they could commence building operations.

**1920 Lynchburg Building \$450,000 Greater Than in 1919.**

Lynchburg, Va., January 10.—[Special.]—Building permits for the year 1920 exceeded those of 1919 by more than \$450,000, according to information furnished by J. G. Nowlin, secretary-treasurer of the Chamber of Commerce. During the past year permits for business houses represented investments of \$834,500, compared with \$351,925 for similar construction permits during 1919. The sum to be expended in erection of buildings indicated by permits issued amounted to \$149,320 in 1919, compared with \$118,160 in 1920.

**Miami Building Activities Increase by \$1,300,000.**

Miami, Fla., January 10.—[Special.]—The value of new buildings and alterations represented by building permits issued here during 1920 was \$1,300,000 greater than during the preceding year. During the past year a total of 2151 permits were issued for improvements to cost \$4,432,380, while during 1919 1639 permits were issued for work estimated to cost \$3,132,265, according to A. H. Messler, Inspector of Buildings.

**Meridian Building Activities Nearly Doubled in Year.**

Meridian, Miss., January 8.—[Special.]—Building activities in 1920 almost doubled those of the previous year, according to figures just compiled by Burt Stuart, City Building Inspector. In 1920 \$561,045 was the cost of improvements indicated by the building permits issued, including repairs and extensions and new buildings, while in 1919 the total estimated cost of such improvements was \$247,670.

**Savannah Permits for 1920 Exceed by Over \$2,200,000 Those of Previous Year.**

Savannah, Ga., January 10.—[Special.]—During 1920 659 permits for buildings and improvements to cost \$4,025,000 were issued as compared with 573 permits for 1919 for similar work to cost \$1,770,645.

**Wilmington Building Increase by \$385,000.**

Wilmington, N. C., January 10.—[Special.]—During 1920 187 permits were issued for new construction and alterations to cost \$1,388,750, as compared with 142 permits issued in 1919 for construction work of all kinds to cost \$1,003,550, showing an increase of over \$385,000, according to Charles Schnibben, Building Inspector and Chief of Fire Department. During 1920 32 permits were issued for stores, churches, factories, garages, etc., to cost \$639,000; 98 were issued for dwellings and other frame buildings to cost \$541,350 and 57 for repairs of buildings of all classes to cost \$208,400.

The Inspector reports that just now the building situation is dull, but that there is strong belief of a revival in the early spring. A site for a \$1,000,000 hotel has already been purchased. A hospital building to cost \$150,000 will be erected during this year, as will a number of large business houses, and plans for a large number of dwellings are being prepared.

**New Orleans Building Operations Break All Records.**

New Orleans, January 10.—[Special.]—This city broke all records for building operations during 1920, when it expended a total of \$12,561,478 on new construction and repairs. This is not only the best record for any previous year, but double that of any previous season, and nearly equal to the entire construction undertaken during the war. There was some revival of building activity in 1919, but it did not reach its full height until during the last months of the past year.

Little has been done for the erection of new residences, although there is an acute need. Of the total expenditures for construction, \$5,068,443 has been spent for bank buildings, or nearly half of the total; \$1,677,149 is the estimated cost of office buildings for which permits were issued, while factories and warehouses to cost \$837,158 were also approved. A total of about \$2,239,673 is represented by new residences. New apartment-houses to cost \$399,600 are included in the total.

Automobile business houses and garages, costing \$194,474, were erected, while similar shops in other lines totaled \$263,700.

There have been erected during the year some of the finest buildings ever constructed here, and there has been a decided step forward in architecture. The skyline has gone up several stories, and the city has now advanced to the 20-story building, having passed the 12-story building a decade ago. Heretofore high buildings have not been constructed, due to the general impression that the ground was too soft to permit such high structures.

**Port Arthur Shows Nearly \$500,000 Increase in Building Activities.**

Port Arthur, Tex., January 10.—[Special.]—During the past year new work and improvements to established concerns represented an increased expenditure of nearly \$500,000 over 1919, according to E. H. Miles, City Clerk. During 1920 a total of 716 permits was issued in the city for work to cost approximately \$719,396, as compared with a total of 211 building permits issued in 1919 for work to cost \$236,336.

**Richmond Building Activities Decrease.**

Richmond, Va., January 10.—[Special.]—Building permits issued in 1920 here represent a decrease in value of about \$1,850,000 as compared with the total cost of new work and alterations authorized in 1919. For the year ended December 31, 1920, the total work authorized for the preceding year amounted to \$6,919,278, being composed of repair work to cost \$2,130,522 and new work to cost \$4,788,756, for which 1069 permits and 623 permits were issued, respectively. In 1919 the total work authorized amounted to \$8,770,452, composed of repair work to the value of \$1,141,870 and new work amounting to \$7,628,582. For new work 1327 permits were issued, while for repair work only 982 were issued.

During the year 88 new brick dwellings were authorized at a cost of \$622,650, while 94 frame dwellings were approved to cost \$558,135. Thirty-three brick stores were approved at a cost of \$195,630, and \$129,591 was the estimated cost of frame sheds. Private garages to the value of \$158,836 were provided for, while public garages calling for a total expenditure of \$356,000 were approved.

Three apartment-houses to cost \$197,000 are included in the new work. Warehouses and manufactories at a cost of \$1,851,618 are presented by 38 permits. Permits were issued for 7 new church buildings to cost \$278,500, while 2 new theaters to cost \$195,000 were approved. School buildings costing \$113,700 were approved.

Under alterations and repairs 264 permits were issued for brick dwellings to cost \$178,814, and for 399 to frame structures at a cost of \$208,911. A total of 185 alterations to brick stores at a cost of \$225,314 was approved, and 125 to manufactories to cost \$718,175, and 3 to halls to buildings at a cost of \$116,282. Improvements to 13 bank buildings were approved at a cost of \$124,064, and 3 hospital additions were provided for to cost \$135,000.

**Shawnee Nearly Trebles Building Activities.**

Shawnee, Okla., January 10.—[Special.]—Building permits issued here during 1920 represent total expenditures of nearly three times those of the preceding year. During the year just closed permits to the value of \$540,008 were issued as compared with a total of \$199,106 in 1919. In addition to the building permits issued in 1920, municipal expenditures for the year amount to \$771,500, making total expenditures for improvements in the city of \$1,311,508. The municipal improvements included a hospital addition, Junior high-school building, water-works additions and extensions, detention-house, sewers, sidewalks, incinerator repairs, etc., according to R. L. Clayton, Inspector of Buildings.

**Springfield 1920 Building Program Large.**

Springfield, Mo., January 8.—[Special.]—Permits for new structures and remodeling of buildings here for 1920 represent investments amounting to \$1,077,360. During the year 417 permits were issued, including new buildings to cost \$735,080 and remodeling work to cost \$342,280. In 1919 the new buildings for which permits were issued represented an expenditure of \$483,725 and remodeling jobs \$248,170, a total of \$731,895, representing a total of 432 permits.

September was the most active month for building, 60 being issued, and the next highest month was October, with 51 permits.

It is estimated that the building program for 1921 will exceed \$3,000,000. This will include three Junior high school buildings that will cost approximately \$600,000; the Shrine mosque, \$300,000; the Grace Methodist Church, \$100,000; the addition to the Pythian Home, \$150,000, and probably additions to the Southwest Teachers' College.

**Spartanburg Registers \$300,000 Increase.**

Spartanburg, S. C., January 10.—[Special.]—Building operations in this city during the past year exceeded those of 1919 by approximately \$300,000, according to J. H. Shores, Inspector of Buildings. During 1920 a total of 478 permits was issued for work to cost about \$993,612, as compared with 358 permits issued during the previous year to cost \$693,895.

Prospects for increased building activities during this year are bright, according to the inspector, in view of the recent big reductions in the price of building materials, and the wage decreases and the possibility of selecting labor now owing to the available supply due to cessation of activities in other lines.

**St. Petersburg Improvements Total \$2,800,000 for 1920.**

St. Petersburg, Fla., January 10—[Special].—During the past year a total of 1225 permits were issued for new buildings, alterations and improvements to existing structures estimated to cost \$2,801,120, according to P. J. McDevitt, Building Inspector, who states that this means the addition of from 4000 to 5000 rooms for housing.

**Tulsa Building Operations Continue to Increase.**

Tulsa, Okla., January 10—[Special].—Expenditures represented by building permits issued in 1920 exceeded those of the previous year by nearly \$200,000, and over a period of four years more than \$32,000,000 is represented in permits issued here. There are already in prospect for this year new buildings and improvements to cost \$2,000,000, according to H. E. Kopp, Building Inspector. This includes a new office building to cost \$1,000,000, and residences, business houses and similar structures to cost altogether \$1,000,000.

During 1920 permits representing improvements to cost \$9,648,587, as compared with a total of \$9,478,733 issued in the previous year. In 1918 permits for work to cost \$4,846,780 were issued. During a four-year period February is the "peak month" and \$2,319,000 is the total value of work approved. The lowest month was November, 1918, with but \$42,835 worth of work. In December of the past year permits to the value of \$289,841 were issued.

**Tampa Building Operations Double in Value.**

Tampa, Fla., January 10—[Special].—The value of new buildings and improvements made here during the past year were a trifle more than double those of 1919, according to figures just compiled by Asher Bassford, Inspector of Buildings. The number of permits issued in December was smaller than in any previous month, however. During the year 276 new frame buildings were erected and 58 brick structures. Permits issued for repairs, alterations and additions numbered 648 and represented an expenditure of \$451,112. During 1920 a total of 1064 permits was issued, involving an outlay of \$2,684,092, as compared with 1043 permits in 1919 for new structures and improvements to cost \$1,202,534. In 1918 only 712 permits were issued for work to cost \$68,440.

**Winston-Salem Issues Permits for Houses to Cost Nearly \$3,000,000.**

Winston-Salem, N. C., January 8—[Special].—A total of 1235 building permits was issued here during 1920, representing expenditures amounting to \$3,259,495, according to H. E. Nisson, Building Inspector. During the year 402 permits were issued for new dwellings to cost \$2,891,011 and 833 permits were issued for improvements and repairs which will cost \$368,484. The large number of permits obtained for erection of residences illustrates the rapid growth of the city.

**Muskogee Building Activities Show Decrease in Value, But Better Distribution.**

Muskogee, Okla., January 10—[Special].—During 1920 the Building Inspector here issued 234 permits for construction work of all kinds to cost approximately \$866,297, as compared with 209 permits issued during the preceding year for work to cost \$1,469,156. During 1920 the construction work was more varied than during the previous year, including 3 stores, 49 garages, 179 residences, 2 school buildings and 1 theater. In 1919 permits were issued for 8 stores, 40 garages, 159 residences and 2 school buildings.

**Operations Begun in Manufacturing Plant of Locke Insulator Corporation, Baltimore.**

The plant of the Locke Insulator Corporation, in the southern section of Baltimore, is practically complete and manufacturing operations have begun. The various buildings have a floor area of over 120,000 square feet and comprise what is known as an eight-kiln plant. It is built upon a 10-acre tract extending from Light and Cromwell streets to the middle branch of the Patapsco River, between Light and Charles streets. The plant when completed will represent an investment of more than \$800,000, and will give employment to about 300 persons.

All of the buildings have been completed and workmen are busy putting on the finishing touches and installing the manufacturing equipment. They include a sliphouse, making building, kiln building, a shipping and testing building and a power building. All of the buildings with the exception of the power and kiln units are of mill-type construction, with sawtooth roofs to provide the best lighting and ventilating facilities. The walls of all the buildings are of brick, except on the sides where it is proposed to expand in the near future, where temporary construction

has been provided. Concrete floors are installed throughout the plant. To reduce the fire insurance to a minimum, automatic sprinklers are provided throughout the plant. The power and kiln units are of fireproof construction, being built of steel brick and concrete, and having steel sash.

This plant will be one of the most up-to-date plants for the manufacture of high-tension insulators in the country, and will contain all the latest machinery and equipment and labor-saving devices. The design of the buildings and the layout of the plant have been made with a view to securing the most economical production possible. Attention has also been paid to making it as attractive as possible, in view of the nearness of the imposing Hanover-street bridge, and it will carry out the owners' idea of improving the attractiveness of Baltimore plants.

The raw material will be received from nearby States and from abroad, and probably 700 carloads yearly will be consumed. A siding from the Western Maryland Railway Co.'s tracks at Port Covington terminal has been run into the plant.

The kilns, of which there are eight, have been completed and fires started in some of them. Just now saggars are being manufactured preparatory to starting actual manufacture of their regular products, namely, suspension and pin-type insulators, bushings and accessories for high-voltage transmission lines, the same as are now being manufactured in their 16-kiln plant at Victor, N. Y. Shipments will total about 1,000,000 insulators per year.

For the power-house a brick chimney upon a concrete foundation has been completed. It is 110 feet high, of red brick, and was constructed by the Alphons Custodis Chimney Construction Co. of New York.

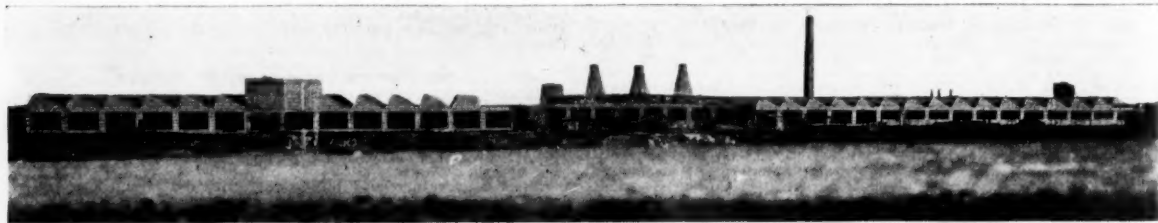
All of the buildings are individually heated by unit-type heaters furnished by the Skinner Engineering Co. of St. Louis, Mo., and represented in Baltimore by W. C. Idall, Builders' Exchange Building.

J. Henry Miller, Inc., Eutaw and Franklin streets, had the general construction contract. Riggs, Distler & Stringer, Inc., 216 North Calvert street, electrical, heating and miscellaneous plumbing and piping. The Continental Engineering & Equipment Co. of Continental Building installed the sprinkler system. Wm. E. Cotton & Co., 1507 Central avenue, were subcontractors for sheet-metal work.

A complete sewer system was installed and water lines extended through the site for domestic consumption and for fire protection. Much of the material used in constructing the plant was obtained from Baltimore houses, although the machinery came from out-of-town manufacturers in large part.

**Taking Oil Produced in New Dixie Pool.**

Oklahoma City, Okla., January 8—[Special].—All the oil produced in the new Dixie pool, near the Pine Island district of Louisiana, is being taken into the new four inch pipe line of the Standard Oil Co., according to Paul M. Pope, general manager of the Choate Oil Corporation, whose concern has three producing wells there and a fourth due in this week. Fourteen wells are drilling in the pool, principally by the Choate Oil Corporation, the Louisiana Oil & Refining Co., the Woodbine Oil Co. and the Richardson Oil Co. Several concerns are erecting storage for emergency. The Choate has two 55,000-barrel tanks at Oil City, La. The Choate wells are making about 125 barrels each per day. The first one, which was completed as a gasser, increased its oil production from 1300 barrels in September to 3600 barrels in December. The Louisiana Oil & Refining Co. wells in that district are making 4000 to 5000 barrels daily.



UP-TO-DATE PLANT OF THE LOCKE INSULATOR CORPORATION, BALTIMORE.

## SOUTHERN TARIFF CONGRESS TO MEET JANUARY 27-29.

**Delegates to Gather in Atlanta Representing Every  
Productive Industry in the South.**

[Telegram to Manufacturers Record.]

Southern Tariff Association.

Atlanta, Ga., January 10.

Every line of Southern productive industry will be represented at the second Southern Tariff Congress, to be held here January 27 to 29, and the leaders of these various industries will gather here several days before the congress for a preliminary conference. More than 100 of the leading chambers of commerce have named delegates, and practically every industrial and agricultural association in the South will be represented. Governors from many States and several prominent Senators and Congressmen will attend. Georgian Terrace has been commandeered for use as a Governor's Mansion during the congress, and many Southern political and industrial notables will stop there. Mrs. Charles M. Farwell, chairman of the Women's Division of the Southern Tariff Congress, is expecting 500 leading Southern women here during the congress, and has reserved a suite of five rooms at the Georgian Terrace, where she will soon open women's headquarters.

Among the Southern industries that have appointed delegates to the Atlanta Congress are the following: Cattle, National Livestock Association, Southern Cattlemen's Association, Texas, New Mexico and Arizona State organizations; peanuts, National Peanut Association; rice, all Southern rice-growing and milling associations; cane and sugar, Louisiana Sugar Planters' Association and American Cane Growers' Association; cotton-mill delegates are to be named later; cottonseed, American Cotton Association and affiliated State organizations, American Federation farm bureau and State organizations, agricultural commissioners, State farmers' unions and other agricultural organizations; fertilizers, Southern Fertilizer Association, Fertilizer Mixers' Association; lumber, Southern Pine Association and affiliated organizations, including wood pulp and naval stores; iron and steel, committee of prominent Southern steel manufacturers; coal-tar dye products, same as iron and steel; flour milling, all organizations representing Southern milling interests; tale, committee of leading Southern tale producers and manufacturers; graphite, Graphite Producers' Association of Alabama; Creamery and Dairy Products Committee, represented by the national industry and Texas and Missouri butter manufacturers; honey, committee from National Honey Producers' League; long-staple cotton, East Texas committee and American and Arizona Egyptian Cotton Growers' Association; sulphur, Texas and Louisiana producers; tobacco, several State organizations; citrus fruit, Florida Association will name delegates later.

A strong delegation will come from East Texas representing the East Texas Chamber of Commerce. The manufacturers' associations of Tennessee, Alabama and Georgia will have large delegations present, and practically every Southern bankers' association.

The leading Southern trade publications and more than 100 chambers of commerce, representing 18 States in the South and Southwest, have named delegates. J. A. ARNOLD, Manager.

## Asheville Completes Large Municipal Building Program.

Asheville, N. C., January 10.—[Special.]—Many of the plans of the City Commissioners announced during the early part of last year were completed during the year just closed. Included in the program was a pipe-line extension to connect the Bee Tree watershed with the city lines at a cost of \$350,000; completion of the new high school at a cost of \$100,000; a school building for colored children at a cost of \$24,000; purchase of additional land to be used as an improved playground; expenditures amounting to \$160,000 for improved streets; police signal system improvements costing \$16,000; new fire-alarm boxes costing \$5,200; municipal garage costing \$14,000, and a comfort station erected at a cost of \$28,000.

## Increased Building Activity Anticipated in Fort Worth During 1921.

Fort Worth, Tex., January 10.—[Special.]—Although building activity here last year meant the fulfilling of one of the biggest programs of its kind in the history of the town, members of the Chamber of Commerce, local architects and leading business men and contractors predict greatly increased activities during the present year.

What is probably the largest undertaking of the city since the building of the dam that formed Lake Worth is the construction of the sewage-disposal plant. Contract has been awarded Dwight P. Robinson & Co., Inc., of New York city for constructing, equipping and planning the work. Active construction will probably begin about July 1, and will entail an outlay of about \$725,000.

Among the other large structures to be started in the city within the next few months will be a \$650,000 theater building for Alexander Pantages at 10th and Main streets. Work on the new Baptist church building, to cost \$75,000, will begin soon. Final plans are being prepared for a \$500,000 Y. M. C. A. building.

Another feature of improvements to be made this year will be improvements and extensions to the properties of the Northern Texas Traction Co., including new car barns, 100 new one-man cars, at a total cost of probably \$1,000,000. Plans and specifications will shortly be prepared for a Y. W. C. A. building to cost between \$200,000 and \$250,000. It will be erected at 7th and Tyler streets.

A church building to cost \$125,000 will be erected at the Texas Christian University in the spring. During the year a \$250,000 dormitory is to be built, and a gymnasium building to cost \$150,000 will be ready for occupancy late in the winter.

The first unit of the Travis Avenue Baptist Church will be built immediately, the entire structure to cost about \$85,000. A community center for the Trinity Episcopal Church will be constructed at a cost of \$100,000.

The Neil P. Anderson building will be ready for occupancy early in February, having been built at a cost of \$600,000. The construction of the helium gas plant, erected at an enormous cost, is about complete. About the latter part of this month the 24-story Farmers and Mechanics Bank Building at 7th and Main streets will be finished at an approximate cost of \$3,000,000.

Plans will be discussed during the year for the construction of a union passenger terminal. It is said that plans are also being prepared by the Texas & Pacific Railway Co. for new shops, freight-houses, additional terminal facilities, etc. Many warehouses will be erected in the city during 1921, according to present indications.

## Big Building Program in Sight for Gastonia This Year.

Gastonia, N. C., January 10.—[Special.]—Residences, business houses, cotton mills and improvements of various kinds already planned for this year will entail an expenditure of more than \$4,000,000, according to data just compiled. And this amount of money does not cover all the construction work that will go forward, but only such projects as are now about to get under way.

There are nine principal residences, to cost from \$10,000 to \$30,000 each, and other buildings of this kind now in the hands of architects will cost approximately \$300,000. Two store-rooms will be erected at a cost of \$50,000. Quite a number of projects proposed for 1920, but which were not started or have not been finished, are expected to be completed this year. They include a \$300,000 hotel addition, an apartment-house to cost a similar amount, a Methodist Church building to cost \$200,000, and other church structures to cost \$160,000. Plans have been prepared for a \$125,000 building for the First Baptist Church. An addition to cost \$75,000 is planned for the city hospital. A garage is to be erected by Col. T. L. Craig to cost \$75,000, and a country club may be erected at a cost of \$50,000.

According to present plans, many mill additions will be made during this year, including Arkray, Priscilla, Shuford, Adams-Spencer, Flint No. 2, the Groves Mills, Inc., and the Loray Mills. These improvements will entail an expenditure of more than \$1,200,000, and will greatly increase the output of the various plants.



## AUSTIN MACHINERY CORPORATION BUYS BIG FAIRMONT PLANT.

**Will Continue Manufacture of Mining Specialties, Increase Output of Austin Equipment and Make Other Important Extensions.**

Fairmont, W. Va., January 6—[Special.]—The Austin Machinery Corporation of Chicago, Ill., has purchased the plant of the Fairmont Mining Machinery Co. here and will continue to manufacture its own line of mining specialties, and in addition will substantially increase its production of concrete-mixing machinery, material-handling and earth-moving Austin equipment. Extensions to the local plant are contemplated for the near future.

The various types of mining machinery and pumps and similar equipment that have been manufactured at the plant here will be continued and developed. The supply side has been organized as a separate concern, and will do business as the Fairmont Supply Co., and Frank C. Davis, acting president of the Fairmont Mining Machinery Co., is helping with the organization of the new company.

The local announcement of the merger just issued is as follows:

"A deal has been consummated in New York whereby the Austin Machinery Corporation purchased the entire plant and equipment of the Fairmont Mining Machinery Co.

"The Austin Machinery Corporation, whose main offices are in Chicago, is a strongly established concern, and are large manufacturers of road building and other machinery. They operate several plants located at advantageous points in the United States, and while they will continue to manufacture the products handled by the Fairmont Mining Machinery Co., they will add new lines of manufacture, and their entry here will mean a great deal to the community. O. A. Seyferth of the Austin Machinery Corporation will arrive in the city early next week to take charge of the plant.

"The jobbing department of the Fairmont Mining Machinery Co., or the entire hardware, mine and mill supplies, have been sold to the Fairmont Supply Co., which company will carry on that part of the business at its present location for the time being, or until such time as the buildings occupied for that purpose are required by the Austin company for manufacturing. It is the intention of the Fairmont Supply Co. to provide in the near future a suitable building for the continuation and development of their business."

Regarding the consummation of the transaction the Austin Machinery Corporation wires the MANUFACTURERS RECORD as follows: "Austin Machinery Corporation has purchased the entire Fairmont Mining Machinery Co. plant. Will continue to manufacture its own line of mining specialties, and in addition will substantially increase the production of concrete-mixing, material-handling and earth-moving Austin equipment. Extensions are contemplated for near future."

## Beaumont Votes \$1,975,000 Bond Issues.

Beaumont, Tex., January 10—[Special.]—A total of \$1,975,000 in bonds was voted for public improvements at the recent election here, providing for additional municipal water-front facilities, extending and enlarging water-works, highway improvements, sewerage-system extensions, additional equipment for the fire department, and maintenance and erection of school buildings. The MANUFACTURERS RECORD is advised by George J. Roark, City Manager, that as quickly as the bonds are lithographed and sold work will begin. Preliminary plans have been made and officials are going forward with final preparations for each item.

The following issues were approved: (1) For the extension of the municipal wharf and dock facilities, including wharf terminals, railways, docks, warehouses, elevators, loading and unloading devices, and the general improvement and extension of the water-front facilities, \$500,000; (2) for the improvement and extension of the water-works system, \$350,000; (3) for the improvement and extension of street highways, \$350,000; (4) for the improvement and extension of the sewerage system, \$200,000; (5) for fire-department improvements and new equipment, \$75,000, and for the maintenance and erection of public schools, \$500,000.

## \$100,000,000 Industrial and Building Expansion in Birmingham During 1920 Will Be Reflected in Renewed Activities This Year, Say Leading Business Men.

Birmingham, Ala., January 10—[Special.]—Expenditures of upward of \$100,000,000 is involved in industrial and similar developments and building activities started in this section during 1920, and some of which will be completed during this year. It is believed that this section has suffered less from the period of depression than any other part of the country, and already leading business men say a revival of activities and a resumption of business on a large scale is here.

About \$16,000,000 was invested in new corporate enterprises. Half a dozen steel cargo carriers were completed at great cost, and during this year about eight additional ships are to be built. By-product plant extensions represented an expenditure of more than \$15,000,000, and the number of ovens was increased from 837 to 1171, and the combined output to about 6,000,000 tons of coal and 4,500,000 tons of coke a year. Within the city proper more than \$4,500,000 was expended in new construction work, while in the adjacent territory about \$2,500,000 was spent for similar improvements. A total of probably \$20,000,000 in hydro-electric developments is represented by improvements started or completed in this field during the year. Plant extensions by the various steel, coal, iron and similar large concerns represented an expenditure of close to \$10,000,000. The new pressed steel car plant and auxiliaries will mean upon completion a total investment of nearly \$4,000,000, and the erection of new office buildings, high schools, public buildings, fraternal meeting places and similar structures will cost in the neighborhood of \$5,000,000. New industrial plants in and about the city of various kinds started or completed during the year, in addition to the major operations, will entail investments amounting to \$4,000,000.

One of the outstanding developments during the year was the Warrior River improvements, including equipping the terminals, completion of the necessary river craft, deepening the river and making possible regular merchandise freight transportation between Mobile and New Orleans. For the equipment the War Department appropriated \$3,000,000. The terminals are now complete. They consist of railroad facilities, electric cranes, sheds, warehouses and other necessary equipment.

## Gadsden Plants Get Ready for Big Business in 1921.

Gadsden, Ala., January 10—[Special.]—Manufacturers in this vicinity view the new year hopefully and look for a general resumption of activities before early spring. The steel plant started up last week after the Christmas holiday period, and although there is not a large amount of business in hand, it is believed that the demand will increase within the next few weeks, because jobbers and dealers have but small stocks.

The cotton mills have resumed operations and will run four days on an eight-hour basis. After January 17 operation will be more regular. Wages will be cut about 25 per cent.

The car works is running at capacity, and there is no prospect of a slackening in operations there. After the middle of the month the pipe plants and stove foundry will resume operations, and the lack of stocks in distributors' hands is very encouraging. The Alabama Company will soon complete repairs to its one idle stack and will have all departments in operation shortly. The smaller factories are preparing for a resumption of activities, and belief is expressed that all lines of industry here will shortly be crowded with orders.

## Would Increase Capital Stock.

Birmingham, Ala., January 10—[Special.]—The Alabama Home Building and Loan Association and the Birmingham Water-works have announced plans to increase their capital stocks from \$6,000,000 to \$9,000,000 and from \$1,829,700 to \$2,529,700 each, respectively.

The building association stockholders will act upon the proposed increase on February 24. The growth of this association has been continuous since its organization, and has permitted building hundreds of homes in this city. The increased capitalization will enable the enlargement of its scope of usefulness.



## Memphis Industrial Expansion Large During 1920, With Bright Prospects for Increased Activities This Year.

Memphis, Tenn., January 8.—[Special.]—The year 1920 was one of industrial expansion for this city and vicinity in spite of the fact that conditions varied greatly, particularly during the latter half of the year, according to the annual report of Mark Fenton, industrial commissioner of the Memphis Chamber of Commerce.

One hundred and forty-one new business concerns, with a capitalization of \$11,347,000, located here during the past 12 months. They employ 2800 people. This is against 133 for the preceding year.

The approximate total output of manufactured products by Memphis industries in 1920 exceeded that of 1919 by more than \$40,000,000.

This is regarded as permanent growth, and was accomplished in spite of the fact that the last half of the year was marked by a falling cotton market.

In the list of new firms are industries which any city might well covet. A few of them are summarized as follows:

A meat-packing plant, with an annual killing capacity of 300,000 animals, now nearing completion. Magnificent plant of one of the largest cereal feed-manufacturing concerns in the United States, also nearing completion. Paper-pulp mill, recently completed. Two of the largest cracker factories south of the Ohio River; one is now under construction, and work will begin on the other at an early date. Rolling mill recently completed and now in operation, turning out bar and round iron. The largest cottonseed-oil mill in the world, with six main buildings. Automobile manufacturing plant under construction. Oil refinery, recently completed. Twine mill, recently completed.

Portable house manufactory, completed. Automobile body-manufacturing plant with capacity of 2000 bodies daily, now nearing completion. This will be the largest plant of its kind under one roof in the world. One of the largest hardwood flooring plants in the world is being completed. Brick-manufacturing plant, completed. Knitting mill, recently established. Calendar and advertising novelty manufacturing plant, recently established. Handle factory, completed. Toy and novelty factory, established recently. Roofing manufactory, completed. Prepared charcoal plant, under construction. Creamery. Casket and coffin manufactory, nearing completion.

In addition to these, many of the large manufacturing concerns which have not established factories here have located in Memphis distributing branches for this territory. These branches handle an enormous trade through Memphis, even though the goods are manufactured elsewhere.

Aside from the manufacturing growth, Memphis has registered a remarkable development along other lines. A modern theater with a seating capacity of more than 3000 opened its doors to the public during the year, and two other amusement houses are rapidly nearing completion. Another modern hotel is to be built, and preliminary work for the erection of one of the finest auditoriums in the country was started a few weeks ago.

## \$2,000,000 Naval Stores Export Company Formed to Stabilize and Develop Home and Foreign Trade. Largest Organization of Its Kind.

Jacksonville, Fla., January 8.—[Special.]—The Atlantic & Gulf Export Co., Inc., was formed here at a meeting this week of representatives of more than 100 firms, including naval stores exporters, factors and operators. Three hundred thousand barrels of rosin were pledged for export sales exclusively. The company has been incorporated under the laws of this State and is capitalized at \$2,000,000, and the headquarters will be located in Jacksonville.

The organization has as its object the stabilization of export trades, and to that end the 300,000 barrels of rosin has been pledged, to be withdrawn from the market as far as domestic and coastwise trade is concerned and held for export sales. It is believed that this will have a stabilizing effect on domestic market conditions. It is believed that the organization of this new company marks a new era in the industry. Plans call for sending

representatives to European and South American countries. Stocks pledged for export sale are stored in warehouses along the coast from New Orleans to Savannah, and it will not, therefore, be necessary to assemble stocks to fill orders.

Commenting upon the organization of the new company, an officer said: "This company brings together the largest naval stores interests in the United States and the world. Organization was effected under the Webb law, and its success appears assured from the start. The outlook for export business is better and there is now some movement of rosin and turpentine to foreign buyers. During the past 90 days several shipments of naval stores have gone to Germany, with other European countries, which have not been purchasers since the World War began.

"Foreign credits are certain to improve during the next year, and industries which have been closed are certain to open, making a greater demand for export stocks of naval stores than during the last five years. A strong export demand will have the effect of stabilizing the business both as to domestic and export prices."

## Comprehensive City Plan Program for Lake Charles.

Lake Charles, La., January 10.—[Special.]—Lake Charles has a city plan program prepared by Bartlett & Ranney, Inc., engineers of San Antonio, Tex., and backed by the city commission and special advisory committee of the Association of Commerce, making provision for the extension of the city limits and the construction of storm and sanitary sewers on a broad scale.

The plan covers port facilities, widening of streets, improved sewerage systems, auditorium, parks, segregating of industries, wholesale houses and residential property, elimination of truckage and grade crossings, municipal centers, union terminal, garbage disposal and traffic regulations. It contemplates wharves and slips along the river on the Westlake side, and on the east bank of the river and along Contraband Bayou for a frontage of two miles. The adjacent area south of West Sallier street, west of Lake street and extending to Contraband Bayou to be reserved for railway yard and freight terminal facilities for joint use of all railroads.

A wholesale district is provided within prescribed limits; also an industrial district the limits of which are specified, and adjoining this district an unrestricted residence area. Provision is also made for a second industrial district for the future development of the city.

The suggestion is made that a union passenger terminal can be conveniently located along the Southern Pacific tracks between Moss and Ford streets. A municipal center is recommended, with a secondary center suitable for a public square and market. Certain areas are indicated as suitable sites for parks; also a lake-front park and boulevard varying in width from 180 to 230 feet. Specific recommendations are made as to the improvement of certain streets, increasing their width to the city limits and in general providing relief for traffic congestion. J. A. Trotti is Mayor of the city.

## Charleston Anticipates Industrial Progress.

Charleston, S. C., January 10.—[Special.]—General increased activity is looked for within the next few months, and local business men believe that the expansion of the city will be extensive during 1921. The large Standard Oil Co. refinery on the Meeting-Street road will be completed, and will give employment to hundreds of workmen. The plant will be placed in operation within a short time, and already large shipments of oil have been received. This new plant will supply a large part of the Southeast territory and relieve the demand on refineries further north.

The new college buildings of the Greater Citadel, located on the Ashley River at Hampton Park, will probably be completed this year. A large new department store on King street is practically complete. Rapid progress is being made on the hotel at King and Calhoun streets, and many business houses are making additions and improvements.

Efforts are being made by the Port Terminal Corporation to develop the port facilities. The Hawaiian-American Line will make regular sailings from here through the Panama Canal, and the Navy-yard established here has served to increase the importance of the city as a naval supply port.

### \$30,000,000 Industrial Program for Tulsa This Year.

Tulsa, Okla., January 8—[Special.]—Approximately \$30,000,000 will be expended here in municipal and industrial improvements and in the erection of business houses and residences during 1921, according to predictions made following a recent meeting of the Chamber of Commerce. While other sections report shut-downs and lack of ordinary building activities, this city faces 1921 optimistically and confidently.

The program includes street, sewer and sidewalk improvements to cost \$3,000,000. About \$3,500,000 will be expended in erection of such buildings as St. John's Hospital, the Masonic Temple, High-school addition, M. E. Church and the Knights of Pythias Hall. Featuring the building campaign is the Unit Building being erected at a large cost and to be used as a theater and office building, and this part of the program will involve an expenditure of nearly \$10,000,000, including a number of garages, additional office buildings, and many residences and improvements and alterations to present buildings and business houses.

The completion of the county system of hard-surfaced roads will mean the expenditure of nearly \$2,000,000. The Leavall Coal Co. will continue its extensive development east of the city. The University of Tulsa has a building program which will entail an expenditure of about \$2,000,000, and the Oklahoma Central University improvements, for which plans have been made, will cost \$3,000,000.

The financing of the Tulsa Livestock and Industrial Exposition will no doubt be completed during the year, and this will entail an outlay of \$250,000. A part of the new water system planned for the city at an ultimate cost of \$5,000,000 will be completed.

Plans have been completed for a viaduct over the Katy tracks at Union avenue, as have those for a subway under the Midland Valley tracks at 6th street, to cost together about \$165,000. Another subway, near Quanah avenue, will cost \$25,000. Municipal improvements contemplated for 1921 will cost about \$3,000,000, according to the City Engineer.

### Banks of Houston Clear Over Billion and Half in 1920

Houston, Tex., January 10—[Special.]—Bank clearings for 1920 were nearly \$386,680,000 over those of 1919, according to an announcement by Charles A. Dwyer, manager of the Houston Clearing-house Association and assistant cashier of the Union National Bank. The figures for the year amounted to \$1,504,251,520, and clearings amounted to approximately three and one-half times the total clearings in 1914.

Houston's financial strides during the past six years have been quite remarkable, as shown by a comparison of 1920 clearings with those of the preceding years, and a comparison of the 1920 figures, month by month, shows a gain over the same period in 1919, excepting November and December, when the 1919 clearings were considerably in excess over those of 1920. The spectacular falling off in those two months—November, \$13,341,535; October, \$22,070,887—is attributed to sluggishness in liquidation and general depression in business. A year ago good markets for Southern commodities were the rule, and strong demand was enjoyed in every line. Such conditions did not exist in November and December, 1920.

Clearings by months during 1920 and 1919 were as follows:

	1920	1919
January .....	\$134,783,830	\$75,095,228
February .....	106,187,203	57,680,811
March .....	123,998,316	62,516,283
April .....	121,207,107	64,876,504
May .....	119,306,084	74,676,761
June .....	109,120,805	74,448,399
July .....	105,634,273	76,783,347
August .....	121,162,793	88,569,700
September .....	163,324,074	101,213,739
October .....	154,476,560	152,255,750
November .....	129,473,905	142,815,440
December .....	124,577,570	146,648,457

Following are the figures for the last seven years:

Year—	Clearings.
1920 .....	\$1,504,251,520
1919 .....	1,117,571,419
1918 .....	791,351,619
1917 .....	708,647,251
1916 .....	570,068,441
1915 .....	451,537,076
1914 .....	425,907,425

### Will Have Output of 1,000,000 Square Feet of Roofing Tile Yearly.

Birmingham, Ala., January 8—[Special.]—Construction of a new building, 60x200 feet, of heavy mill type construction, and extensive additions and improvements to the plant of the American Cement Tile Manufacturing Co. here, have been started. The work is being undertaken by the company's own forces. The new structure will be constructed of hollow tile walls and red interlocking cement tile roof manufactured in its own plant. The company's property is to be enclosed with a Cyclone fence, and a new siding is to be laid now and another one later in the year.

The product will be American industrial roofing tile of two types, red interlocking and flat in four and five-foot lengths, for industrial and factory buildings. The market for this product will be throughout the entire South and Texas and Cuba.

This plant was temporarily located at Fairfield, Ala., but the machinery and equipment was moved to the new location on the block between Twenty-sixth and Twenty-seventh avenues and 22d and 23d streets North. The property as originally purchased consisted of three acres of land, with two brick dwellings, which have been adapted to the needs of the plant and in which roofing tile is now being manufactured. The completed plant will have a capacity of 1,000,000 square feet yearly.

### Big Dividends by Spartanburg Cotton Mills.

By A. B. BRYAN, Clemson College, S. C.

Cotton mills in Spartanburg county, South Carolina, paid dividends during 1920 almost equal to their capital stock, the total dividends being paid, \$8,242,049.50, lacking only \$850,900 of equaling the combined capitalization of the 21 mills which issued the dividends. The greater part of the dividends was paid in the form of stock, these stock dividends amounting to \$6,058,000. Cash dividends paid amounted to \$2,184,049.

The stock dividends represent for the most part profits accumulated during the era of high prices prevailing since 1915, but which were not distributed until after the United States Supreme Court declared early last summer that stock dividends were not taxable. All the mills, it is said, have good surplus accounts left after paying their dividends.

Since the deflation of prices began there has been little curtailment of output by the mills of Spartanburg county. All are running on practically full time now, and expect to continue doing so. There has been a reduction in wages averaging 20 per cent.

The mill men report more inquiries for goods during the past week than for some time previously, and they say they are expecting a brisk demand a little later on. Several substantial orders have been filled during the past 10 days.

### Asheville Building Program for 1921 Will Entail Expenditure of Millions of Dollars.

Asheville, N. C., January 10—[Special.]—A building program of unprecedented activity will begin shortly in this town. According to estimates just made, fully 50 residences, 7 semi-public buildings, 4 large public buildings, 3 churches, 2 theaters and 6 private buildings will be erected or improved during this year. Contractors, lumbermen and business men view the year optimistically. Hundreds of persons will be busily engaged in the work.

It is said that the expansion is conservative and actually needed, and that the development is quite uniform in the completion of churches, educational buildings, industrial plants, business houses, hotels, office buildings and similar miscellaneous structures.

### May Erect New Church Building at Lynchburg.

Lynchburg, Va., January 6—[Special.]—A new church, to cost approximately \$100,000, will probably be started by the Barton Heights Baptist congregation in Norfolk this spring, it has been announced. The site has been acquired, and the new building will replace the present building, built in 1891 and remodeled in 1913, now outgrown.

# Perpetual Timber Supply Through Reforestation As Basis for Industrial Permanency of Bogalusa

GREATEST SAWMILL CITY OF SOUTH BECOMING CENTER OF DIVERSIFIED MANUFACTURE  
AS RESULT OF WELL-MATURED PLANS OF LONG-VISIONED FOUNDERS—EXPANSION  
OF PAPER-MAKING PLANTS CONTEMPLATES ADDITIONAL \$8,000,000 EXPENDITURE—  
REMARKABLE TRANSFORMATION WROUGHT IN THE MIDST OF A LOUISIANA FOREST.

[Presented herewith is the first of a series of articles describing the birth and growth of Bogalusa, a city of 16,000 population, which came into existence 14 years ago in the heart of a pine forest in Louisiana. A sawmill, the largest of its kind in the world, was the first development, and a model city was established for the workers even before the mill was ready for operation. Paper mills to use the refuse were started, and these have expanded until Bogalusa will become the greatest paper-making center in the South and one of the greatest in the country. Diversified industries have also been established, with others to be added from time to time. To insure perpetuity to the remarkable development under way, an elaborate and carefully worked out plan of reforestation has been established, which, with the vast acreage owned by the Great Southern Lumber Co., will insure a permanent timber supply for all time.

Mr. Courtenay De Kalb, a distinguished engineer, chemist and technical expert, has made a careful study of the entire situation on the ground. The first of his enlightening articles on Bogalusa and its great development follows.—Editor Manufacturers Record.]

By COURTENAY DE KALB.

Bogalusa is a booming town. It is not fair to call it a "boom town," for one is never certain about the future of a boom town; it may prove like the lustiness of youth that passes. Bogalusa is young and lusty and growing, not merely with faith in the years to come, but with certainty of increasing prosperity. That is a matter of business calculation, based on the length of time it takes a pine tree to grow.

Bogalusa is only 14 years old. The people like to remind the visitor that only 14 years ago there was nothing here but the potential wealth of a pine forest. They tell with pride that as recently as 1906 Col. W. H. Sullivan, with visions of a brand-new city in his head, pitched his tent on a sandy flat among the yellow pines beside the sluggish stream called Bogue Lusa, where is now the beautiful Goodyear Park, surrounded by handsome buildings, a Y. M. C. A., a Y. W. C. A., beautiful stores, and a splendid office building for the Great Southern Lumber Co.'s group of allied industries.

The people of Bogalusa never write a sentence that does not begin with "Bogalusa," which might indicate conceit, but they have something to be vain over. They are inveterate boosters, yet the rarest person to be found in this swiftly growing city of 16,000 is a real estate agent, in which respect the Bogalusa booster sharply contrasts with his cousin in Los Angeles, Cal. It is jocularly said that all Southern California is for sale, but all Bogalusa is not for sale. Apparently no one so fortunate as to have established himself in Bogalusa can be bought off; he has come to stay. It is possible, nevertheless, to buy lots in Bogalusa and land in Washington parish surrounding it, because this was all virgin wilderness 14 years ago, and 16,000 people cannot fill up so much open land. When the first settlers came they counted on making money out of a logging camp, which was supposed to have a life of some 40 years. After a time, however, new ideas were conceived and a new policy was adopted. The sawmill was to be supplemented by a pulp mill to consume the waste, instead of burning it up, and the lands were to be reforested to sustain the pulp mill as a permanent enterprise. This meant an altogether different kind of an opportunity from that of feeding off a temporary lumbering community, and the town leaped forward in population.

The city has two banks, with total combined deposits of \$1,600,000; 125 mercantile houses, purchasing over \$2,200,000 worth of goods yearly; there is a 40-ton ice plant, with a cold-storage capacity of 500 tons; there is a creamery and a big modern stock farm developed by the Bogue Chitto Stock Farm Co., which has acquired 11,000 acres of cut-over land from the Great Southern Lumber Co. The Colonial Creosoting Plant has works for treating 200,000 feet of timbers per diem, employing 75 workmen, and the

paving-brick plant has a capacity of 5000 yards daily, sufficient to pave a half mile of street. The main shops of the New Orleans Great Northern Railroad are situated at Bogalusa, affording employment for 300 men. There is a Bogalusa veneer company having a daily capacity of 35,000 feet. Baer & Thayer have a new hardwood mill at Bogalusa with a capacity of 40,000 feet, managed by W. S. Thayer. There is one large high-class hotel, the Pine Tree Inn, with bathing pond, modern golf links, and all the attractions for tourists who know the virtue of the piney woods in the sand belt north of Lake Pontchartrain, in Louisiana, one of the most phenomenally healthy spots in the United States. There are five other hotels, a newspaper, The Bogalusa Enterprise; a Bogalusa building and loan association paying 10 per cent on instalment stock and 8 per cent on full-paid stock; a chamber of commerce, of which B. D. Talley is president and Precey Lindsley secretary. The yearly payrolls of the Bogalusa enterprises aggregate \$4,000,000. There is reason for the boastful boasting habit of the Bogalusan, who seems to think that Louisiana is in Bogalusa and that New Orleans is a suburb.

If so much has been accomplished under the stimulus of the existing enterprises and of faith in the policy of the Goodyear family and the farseeing Colonel Sullivan, there surely will be a tremendous acceleration to the growth of Bogalusa with the construction of the new 600-ton paper mill that has just been authorized by the company. This will mean employment for another 2000 men at least in the town and surrounding country. Within the next two years the population will pass the 20,000 mark. A city of that size affords opportunity for a large farming community, and the influence of the local demand for foodstuffs is already seen in the rapid development of farms and in the building of modern farmhouses.

It must be said that only a portion of the land in Washington parish is suitable for agriculture. Most of it consists of lean, sandy soils, admirably adapted to the growing of pine trees, but deficient in the qualities needed for general farm crops. The rich lands are exceedingly good for yams, sweet potatoes, turnips, beets, cabbage and most garden truck, moderately good for corn, excellent for many kinds of grasses, and well adapted for raising sugarcane. An association has been formed for warehousing the local output of cane syrup, on which advances are made by the local banks. Owing to the abundance of succulent grasses and the absolutely open winters, with pasturage available throughout the year, dairying is becoming an important industry. At the present time Alfred C. Anderson of the Bureau of Soils of the United States Department of Agriculture is engaged in studying the soils in Washington parish, around Bogalusa, which will clearly establish the character and adaptability of every section in the whole area. This will be of great assistance to prospective settlers. Lands shown by this soil survey to be best adapted to tree-growing will be so classified, and will then enjoy a special reduced and fixed valuation under the Louisiana statutes for purposes of taxation



as an incentive to reforestation. Good cleared farm lands are now available at \$50 per acre, on which the appraised valuation would be about \$15. The rate of taxation in the country is 15 mills and in the city of Bogalusa 25 mills per hundred dollars.

There are few communities of the size of Bogalusa in the South that enjoy so many public advantages. The streets are well maintained and everywhere provided with cement sidewalks. The school system is sustained on a high level of efficiency, and there are 6 fine new grammar schools, accommodating 2200 white pupils and having 52 white teachers. A new model high school is nearly complete, and will be ready for occupancy in February, 1921. It is a two-story brick building, 250 feet long by 89 feet wide, magnificently lighted, and cost, with equipment, \$300,000. It was designed by Nolan & Torre of New Orleans and built by Burke Bros. of Hattiesburg, Miss. The city maintains a paid fire department, with two automobile pumping and chemical engines, six hose reels, in addition to which there is an emergency high-pressure pumping engine connected with the city water-supply system to assist in fire-fighting.

Although the site of the city originally belonged to the Great Southern Lumber Co., and homes were built for the employes, the houses and lots are being sold as fast as anyone desires to buy them. As a result, the city has largely ceased to be a "company town," but is essentially a community of freeholders. An interesting feature of the place is that the population is not huddled around a common center. It is scattered over an area embracing 16 square miles. Around the Pine Tree Inn is a district of beautiful modern bungalows costing from \$4000 to \$10,000 each. These are equipped with all the latest conveniences. Building is going on at a rapid rate. The company boasts that of the 16,000,000 feet of lumber cut from the townsite, 15,000,000 was used in building the city.

Bogalusa has started right in another respect. There is a sewerage system, to which all the houses in the town are connected, and the water supply comes from artesian flowing wells that penetrate a gravel stratum at a depth of 300 to 1100 feet.

The significance of all these conditions is that Bogalusa is a comfortable and attractive place for those who appreciate the advantages of civilization. It bears no resemblance to the usual type of lumber camp. The best grade of men can come here with their families to enjoy life in a normal and proper manner, and not merely to make a living. The result is that the best kind of men do come, the superior kind who could make a good living any-

where, and who remain here because they find it a good place to live in, where they can bring up their children in a twentieth-century environment, surrounded by good people in a wholesome Christian atmosphere—for there are more churches than movie theaters in Bogalusa.

Stress has been laid on the city of Bogalusa because it is the chief glory of the Great Southern Lumber Co. Many enterprises make as much money as this one, and many of them have expended as much in "welfare" work, but few can point to an achievement so unique as this, where a civic spirit has been promoted and where private initiative has been given actual opportunity to develop. The betterments in this ideal little city have been the outgrowth of co-operation among the citizens. It is a free community, working out its own destinies, and not dependent on the largess of a corporation. To create such a city is something far surpassing conventional welfare work. Credit for having conceived the plan of converting a lumber camp into a self-governing city is due to Col. W. H. Sullivan, its designer and builder, and to the liberal-mindedness of F. H. and C. W. Goodyear, the founders, who approved and aided with wise counsel and generosity in the initial expenditures by the company to make the idea effective.

The foundation on which all this that we see today has been built was the Great Southern Lumber Co., that bought a great area of virgin pine land in Louisiana and Mississippi in 1905. It is a curious circumstance that the sawmill design was drawn before the site was selected. In a flat country, it was not necessary to consider the lay of the land, for it all lay alike. This mill was designed to cut 1,000,000 feet of lumber daily. It has often exceeded that figure. Even today, with a depressed market, it is cutting over 600,000 feet per diem. Thus it stands out as the largest sawmill in the world. The site chosen was near the mouth of the creek known as Bogue Lusa, one and a half miles from Pearl River.

The New Orleans Great Northern Railway Co. was organized as an adjunct to the enterprise. This was not a logging road, but a well-equipped interstate line, extending from Slidell, La., to Jackson, Miss. From Slidell the Great Northern trains use the Southern Railway tracks into New Orleans. The capital invested in this road is \$12,000,000. The capital stock of the Great Southern Lumber Co. is \$10,000,000 and of the Bogalusa Paper Co. \$2,000,000. The logging roads in the Louisiana tract for bringing logs to the mill belong to the lumber company, but the



SAWMILL OF GREAT SOUTHERN LUMBER CO. AT BOGALUSA.

logs from the Mississippi forests owned by the Great Southern are delivered to the New Orleans Great Northern Railway for transportation to Bogalusa. In the Louisiana area of forest land the company now operates 75 miles of railroad, and it normally lays and takes up one mile of logging road daily. A standard all-steel type of flat cars, made by the American Car & Foundry Co. of St. Louis, Mo., are employed. There are 19 Shay type locomotives in the logging-road equipment, built by the Lima Machine Co., Lima, O. These are provided with adequate spark arresters. Great care is exercised to prevent forest fires. To supply the mill, 60 acres of timber land are cut daily. The average number of logs hauled to the mill each day amounts to 7200.

Aside from a few novel features, the main interest in the sawmill plant is its magnitude. A mill that actually saws more than a million feet of lumber daily is sui generis. It spreads over 160 acres of ground, including the stockyards. In 1917 it shipped 9148 cars of lumber, 329 cars of lath and 29 cars of shingles, being a daily average of 32 cars. The B and better grades shipped in that year amounted to 46.31 per cent of the total sales. In this were included timbers to the extent of 29 per cent. For transporting lumber in the plant there is a system of 50 miles of tram track, in addition to which the trucks of lumber to be delivered to the drying yards are picked up and conveyed by a mono-rail system with an electric carriage, made by the Pawling & Harnischfeger Company of Milwaukee, Wis., taking a load of 10,000 pounds. In the planing mill are 28 machines and 5 resaw machines. A box factory adjacent to the planing mill, utilizing exclusively waste material, turns out 50 carloads of shooks per month. This factory is equipped with 2 resaws, 3 planers, 5 cut-off saws, 8 rip-saws, 1 Ferris-wheel trimmer, 2 nailing machines, 2 splitting machines and 1 variety saw. The lath, shingle and stave mills are operated on waste material also. In spite of this extensive utilization of waste in making minor products, the only fuel employed for generating power at the plant comes from mill refuse. Considering that waste is used in the manufacture of paper-pulp boxes, lath, shingles, staves and for developing power, it will be apparent that the waste burner is not a very active part of the Great Southern equipment. It is retained as an emergency relief in case some part of the waste-utilization system becomes temporarily embarrassed.

The logging main-line railroad delivers the logs to an unloading dock, where they are dumped into a log pond 27 acres in extent. No mechanical means for handling the logs to the log-chain con-

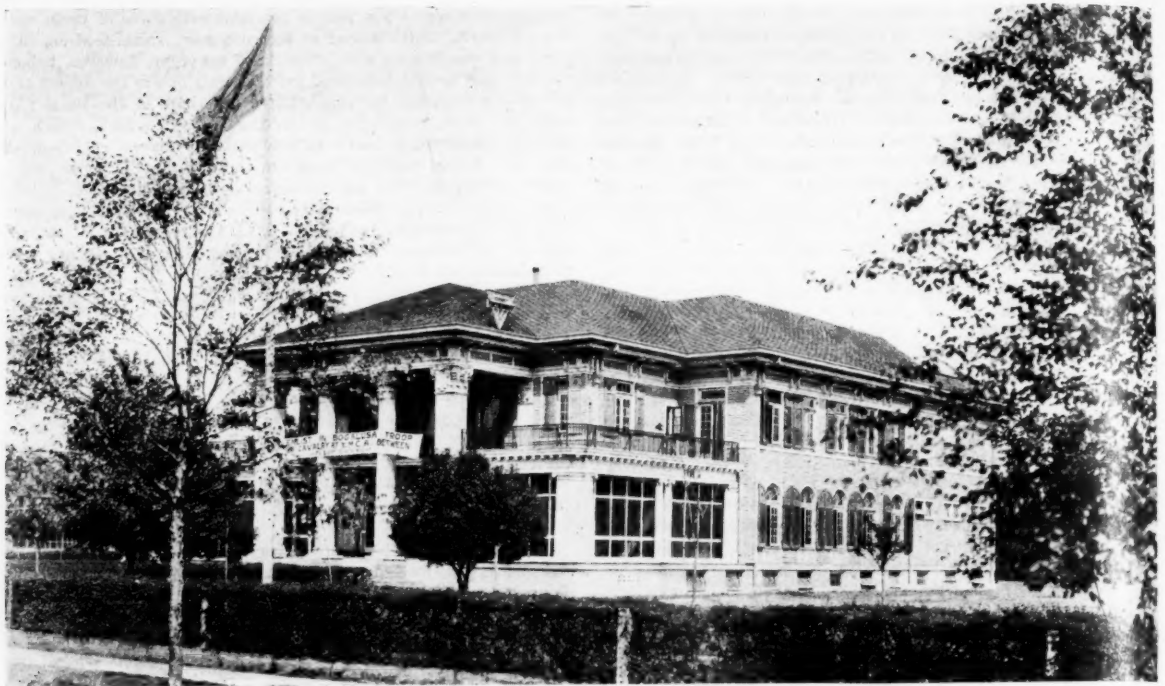
veyor is so cheap, so flexible and so efficient as to float them in the old-fashioned way. The mill is provided with three of these conveyors, two of which deliver to the customary steam-feed log carriage and single band saw. The third conveyor, however, brings the logs to a special twin-band saw, the only one in the South, and designed exclusively for this mill, to take care of the small top-logs, and made adjustable to cut the log into 3-inch, 6-inch or 12-inch widths as desired. It is electrically driven, each saw of the pair being provided with an independent 50-horse-power motor. This machine was manufactured by Giddings & Lewis, Fond du Lac, Wis. The band saws used by the Great Southern Lumber Co. come mainly from the E. C. Atkins Saw Co., of Indianapolis, Ind., although a considerable proportion of them are purchased from the Disston Saw Co., Philadelphia, Pa., and from the Simonds Manufacturing Co., Fitchburg, Mass. The standard used here is 14 inches wide, of No. 14-gauge steel, with  $1\frac{1}{4}$ -inch tooth space, the total length of each saw being 14 feet. They are worked down to a minimum of 10 inches. The life of each saw in the grade of lumber cut at Bogalusa is four months, the driven speed being 9800 feet per minute. As a matter of detail, it may be of interest to note that Atkins silver solder is used for brazing broken saws, in conjunction with Nokorode soldering paste, manufactured by the M. W. Dunton Company, Providence, R. I. The company has an expert brazer, and working with these supplies the joints prove sound and reliable. The brazing iron is made locally from Swedish iron.

In addition to the band saws, there are two gang saws, with 32 saws each, one made by the Diamond Iron Works, Minneapolis, Minn., and the other by Wickes Bros., East Saginaw, Mich., and also three resaws made by the Filer & Stowell Company, Milwaukee, Wis. The usual system of conveyors is employed, the sorting being done at the end of the mill. When cutting 600,000 feet per day of 20 hours as at present, five sorters are required on each 10-hour shift. Some of these are white and some colored. The accuracy of judgment, combined with the necessary promptness of decision to prevent being overwhelmed by the steady stream of lumber coming forward, was one of the most significant things in connection with the workmen to be seen at this plant.

At the end of the mill the stream of lumber is diverted at right angles into two opposite courses, one going to truck loaders for transmission to the stockyards for open-air drying. On the way every piece is sent through a mechanical dipping machine, where the lumber, carried transversely on the conveyor chains, is de-



GREEN STOCKYARD AT SAWMILL OF GREAT SOUTHERN LUMBER CO., BOGALUSA, LA.



THE FINE STRUCTURE PROVIDED FOR THE Y. M. C. A. AT BOGALUSA.

pressed by rollers into a solution tank, and then sent on to the trucks. There is thus a continuous stream of lumber being immersed in the tank without stoppage of the conveyor chains. The object of dipping is to coat the lumber with alkali that will prevent sap-staining and bluing, which ordinarily happen to lumber stacked in the open for air-drying. The effect is extraordinary. Lumber stored in the open for months remains brilliantly yellow and lustrous, apparently even brighter than when fresh from the saw. Formerly a solution of plain soda ash (carbonate of soda,  $\text{Na}_2\text{CO}_3$ ) was used, but recently a better mixture has been adopted, consisting of 45 per cent sodium bicarbonate ( $\text{HNaCO}_3$ ) and 55 per cent sodium carbonate ( $\text{Na}_2\text{CO}_3$ ), the formula being to dissolve one pound of the mixture, in the proportions given, in one gallon of water. The covering strength per 1000 feet board

measure is five gallons of the solution. The soda compounds used are what is known as the "Zenith Brand," put up by Church & Dwight, New York.

The dipped lumber is loaded upon trucks, which are taken to the loading terminal of the monorail system previously mentioned, operated by two men, an engineer and a clutch man, and the whole car with its load is taken and deposited on any desired track in the stockyard. There are now 20,000,000 feet of lumber on hand in these yards, which is below the average. The total stock of lumber now carried, both in the open yards and in the stock sheds, is 35,000,000 feet, which is 10,000,000 below normal.

The second stream of lumber diverted by the sorters at the end of the mill is sent to drying kilns. It goes first to a single sorter, who sorts as to length and thickness only, tumbling each board



THE \$40,000 Y. W. C. A. BUILDING, ONE OF THE FINEST IN THE STATE.

into its  
made by  
it to th  
machin  
are thro  
ing 15  
steam-h  
dried  
pound  
lumber  
of five

There  
boiler-re  
from th  
terial"  
nearly  
mission  
is of sp  
nary ex  
pulsato  
it leave  
11-inch  
ally fee  
which  
delivere  
No. 11  
pany o  
Curtis  
pulsato  
motor.  
per mi  
from 4

The  
by J.  
ains 1  
of 480  
The p  
and all  
one ga  
box fa  
power  
nected  
Corliss  
altern  
2000-k  
operat  
and fr



into its appropriate slot in the edge conveyor, a Whaley sorter made by the Filer & Stowell Company of Milwaukee, which takes it to the proper side conveyor, which delivers it to the stacking machine, that loads the trucks for carrying it into the kiln. There are three batteries of eight kilns each, making 24 in all, each holding 15 truckloads, the truckload being 3500 feet. The kilns are steam-heated, with steam at 110 to 120 pounds. The lumber is dried 72 hours, bringing it down from a green weight of 4400 pounds to a dry weight of 3400 pounds. From the kilns the dry lumber is transported to the stock sheds, which occupy an area of five acres.

There is some waste, as well as all of the sawdust, going to the boiler-room from the sawmill proper, but the larger part comes from the planing mill, consisting of shavings, dust and "hog material" from a half-inch to two inches long. The planing mill is nearly a half-mile from the boiler-room, so the pneumatic transmission of all this material, averaging as high as 21 tons per hour, is of special interest. The refuse is collected by a group of ordinary cyclone exhausters, which deliver it to a feed bin above the pulsator. It comes to this bin in a 36-inch galvanized-steel pipe; it leaves the pulsator on its long journey to the boiler plant in a 11-inch steel pipe. The pulsator is a mechanism that automatically feeds the refuse rhythmically into the path of air puffs into which the apparatus converts the steady stream of air that is delivered under a pressure of four pounds per square inch from a No. 11 Sturtevant blower made by the B. F. Sturtevant Company of Boston, Mass. The pulsator is made by the Allington-Curtis Manufacturing Co. of Saginaw, Mich. The blower and pulsator together consume 500 horse-power belted from an electric motor. The capacity of this equipment is 700 pounds of refuse per minute. The amount actually delivered is variable, ranging from 400 pounds per minute upward.

The power plant offers no novel features, but is ably managed by J. H. Friend, the mechanical engineer of the plant. It contains 14 boilers, mostly of the Heine type, with a combined rating of 4800 horse-power, but 7000 horse-power are actually developed. The power to all parts of the plant is transmitted electrically, and all machines except the four main band saws, two resaws and one gang saw, including the machinery in the planing mill and box factory, are driven by independent electric motors. Electric power is developed by two 28x48-inch Corliss engines, direct connected to 500-kilowatt 2300 3-phase alternators; one 18x36-inch Corliss engine, direct connected to a 250-kilowatt 2300 3-phase alternator; one 1000-kilowatt low-pressure steam turbine, and one 2000-kilowatt low-pressure steam turbine. The exhaust steam for operating the low-pressure turbines comes from the Corliss engines and from all steam-using appliances in the sawmill.

The sawmill proper is operated from a 40x60-inch Corliss engine, with steam at 140 pounds, by a unique reverse-drive leather belt that passes first over a weighted tension pulley, laps back over the first lineshaft with 180 degrees of contact; thence around the second lineshaft with 180 degrees of contact, and thence over a tightener idler to the flywheel of the engine. The diameter of the flywheel pulley is 264 inches, with a 74-inch face, making 74

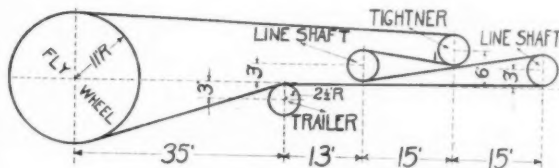


DIAGRAM OF DRIVE SYSTEM.

revolutions per minute. The driven pulleys on the two lineshafts are each 60 inches diameter by 77 inches face, making 325 revolutions per minute. The belt itself is 3-ply, 72 inches wide, 238 feet long, travels 5114 feet per minute and transmits from 1890 to 2000 horse-power. The belt is inspected daily during the two hours of rest in the mill, and is thoroughly overhauled once each week. The belt was originally made by E. A. Usina, a belt expert of New Orleans, and has given great satisfaction.

The construction of a belt of such proportions that will show uniform tension across its width and cover the full number of degrees of contact on both sides uniformly while driven at full speed is an achievement in power transmission that merits attention. Two belts were manufactured, one being held in reserve in case of emergency. The choicest cuts from 540 hides were required for each belt, the leather being tanned in the South. The amount of cement used in each belt was 380 pounds. The special belt glue employed in the original belt, and also in the repairs, is made by E. I. du Pont de Nemours & Co., Wilmington, Del. Other things being equal, success in the maintenance of a leather belt depends on the quality of the glue. This has been shown conspicuously under the severe conditions of an extremely wide belt, with a reverse drive, present in this plant. The company maintains a special belt shop, under the direction of E. R. Belton, for repair work and the manufacture of narrower widths. It is fully equipped, including a toggle belt press. On the 72-inch belt the top ply is made of two pieces, the bottom ply of three pieces and the middle of seven pieces. Only the highest grade of leather is employed, and all stock with defects or knife-cuts is rejected.



HOUSES ERECTED FOR EMPLOYEES.

These houses may be either purchased or rented. The building program is being carried out with the purpose of caring for the growing population. This program is in continuous operation, with the result that houses are available at practically all times.



PINE TREE INN AT BOGALUSA.

The sawmill plant employs 1750 men, and 1100 men are needed at the logging camps, of which there are five, to keep the supply of timber coming forward. The superintendent of the sawmill is L. F. Guerre.

This mammoth plant was the basis that rendered possible the building of the attractive city of Bogalusa. The extension of the business to paper-making will now give to this city not only permanency, but the assurance of continued growth through diversified manufacturing that will be sure to come. The present Mayor, Col. W. H. Sullivan, who is the vice-president and general manager both of the sawmill and the paper interests centered here, is filled with enthusiasm to develop all the latent possibilities of the region, and he looks forward to rapid development of the

resources of the district. The latest proposal is to erect a canning factory, which will be built before next summer, as an encouragement for the farmers to raise tomatoes, beans and other vegetables for which the soil and climate are propitious. The culture of Satsuma oranges is also being stimulated, this fruit attaining a large size at Bogalusa, making an acceptable fancy winter orange for Northern markets. The thing, however, that will make Bogalusa famous, and will bring inquiring students from all over the country, is the mammoth reforestation program, which is showing the whole South how to redeem its cut-over lands and to convert the wilderness, where logging has swept away the timber, into centers of industry for the making of paper. This will be handled in a subsequent article.

### State of Maryland Asks Bids on \$2,500,000 Certificates of Indebtedness for Post Roads and Construction.

The Treasurer of the State of Maryland at Annapolis will receive bids or proposals for certificates of indebtedness, to be opened at noon on February 3, as follows:

Five hundred thousand dollars  $4\frac{1}{2}$  per cent certificates of indebtedness, known as "Lateral and Post Roads Loan of 1920," unsold balance of issue of August 15, 1920.

Five hundred thousand dollars  $4\frac{1}{2}$  per cent certificates of indebtedness, known as "Construction Loan of 1920."

One million five hundred thousand dollars  $4\frac{1}{2}$  per cent certificates of indebtedness, known as "Lateral and Post Roads Loan of 1920," issue of February 15, 1920.

The principal of the lateral and post road loan of 1920, unsold portion, will be payable as follows: Series "J," \$74,000, August 15, 1932; series "K," \$137,000, August 15, 1933; series "L," \$142,000, August 15, 1934, and series "M," \$147,000, August 15, 1935.

The "Construction Loan of 1920" principal will be paid as follows: \$29,000, February 15, 1924; \$30,000, February 15, 1925; \$32,000, February 15, 1926; \$33,000, February 15, 1927; \$35,000, February 15, 1928; \$36,000, February 15, 1929; \$38,000, February 15, 1930; \$40,000, February 15, 1931; \$42,000, February 15, 1932; \$44,000, February 15, 1933; \$45,000, February 15, 1934; \$47,000, February 15, 1935, and \$49,000, February 15, 1936.

The principal upon the lateral and post roads loan of 1921, issue of February 15, 1921, will be paid as follows: \$87,000, February 15, 1924; \$91,000, February 15, 1925; \$96,000, February 15, 1926; \$99,000, February 15, 1927; \$104,000, February 15, 1928; \$109,000, February 15, 1929; \$114,000, February 15, 1930; \$119,000, February 15, 1931; \$125,000, February 15, 1932;

\$130,000, February 15, 1933; \$137,000, February 15, 1934; \$142,000, February 15, 1935, and \$147,000, February 15, 1936.

The certificates of indebtedness awarded will be delivered to the successful bidder or bidders upon receipt of the necessary amount of money on Tuesday, February 15, 1921, at the office of the State Treasurer at Annapolis.

### Big Mill and Public Service Plant Merger at Oldsmar, Florida.

Three large enterprises have been merged at Oldsmar, Fla. The Gulf Coast Lumber & Electric Co. takes over and continues the Welch Manufacturing Co., the Oldsmar Electric & Ice Co. and the Oldsmar Water-works. The new enterprise has a capitalization of \$250,000, with officers as follows: W. F. Allen, president and general manager, Milan, Mich., and J. H. Gambel, secretary-treasurer, Brighton, Mich. It is expected that this consolidation will enable the new organization to effect certain important economies in operation. The Welch Manufacturing Co. has large timber properties that should provide the new corporation with sufficient supplies for its sawmill and planing mill for many years. It advises the MANUFACTURERS RECORD that its plans are not sufficiently matured to make a definite statement at this time.

### Property Bought In for Creditors.

A report from Chattanooga, Tenn., says that at the foreclosure sale of the Dayton Coal, Iron & Railway Co. last week W. B. Allen, as trustee for the general creditors, bought in the company's property, which is situated in Rheant county, Tennessee, for \$250,000. The sale was ordered by Judge E. T. Sanford of the United States Court, under the provisions of a deed given by S. H. Mathews to the Citizens Trust Co. of Chattanooga, with F. A. Nelson as trustee.

January

New  
tric  
DaiBirm  
modern  
now i  
with  
This ne  
at Eus  
to ship

SCRE

able t  
gate. 2  
within  
almostThe  
standar  
to the s  
shop m  
of spar  
prevent  
plant d  
screenin  
with ev  
provid  
ing of c  
delivery  
the railChut  
trucks  
Attalla  
section.The  
motive  
a big c  
ing scr  
is stati  
From t  
to a N  
of 2 1/2  
has bee  
removed  
feeds t  
capacity  
being e  
ing scr  
(1 1/2-in  
bins. 2  
the abo  
screens.  
No. 6  
This

## New Slag Plant Completed at Alabama City Electrically Operated and Has Capacity of 2000 Tons Daily.

Birmingham, Ala., January 8.—[Special.]—A second large and modern plant for crushing and screening blast-furnace slag is now in operation at Alabama City by the Birmingham Slag Co., with home offices in the Jefferson County Bank Building here. This new plant has a daily output of 2000 tons, while the other at Ensley has an output of 4000 tons. The company is now able to ship from two plants, and, having car service at two points, is



SCREENING AND CRUSHING UNIT IN NEW SLAG PLANT.

able to offer the best possible service to users of mineral aggregate. The big car shops of the Southern Railway at Gadsden is within a stone's throw of the plant, and it is turning out cars almost every day.

The slag passes through a crushing plant, which reduces it to standard sizes. It is crushed and screened before being elevated to the sizing screens. An office building and a machine and boiler shop make up the other principal plant units. A complete stock of spare parts is carried for steam shovels, locomotives, etc., to prevent any long delays occasioned by breakdowns. One of the plant details is a private telephone line connecting the office and screening-room so that the superintendent can keep in close touch with every detail or operation from the office. Track scales are provided under the series of loading bins, and makes possible loading of cars to maximum capacity, and, in addition, insures quicker delivery of cars over the old system, where cars were weighed in the railroad yards before leaving the district.

Chutes are also provided for loading wagons and automobile trucks for local consumption in Gadsden, Alabama City and Attalla, as well as for good-road construction in the immediate section.

The shovel-run slag is delivered from the steam shovel by locomotive and side-dump cars to a concrete hopper, which feeds onto a big conveyor belt that delivers the shovel-run slag to the scalping screen. Along the conveyor at an advantageous point a man is stationed who hand-picks all the visible iron from the slag. From the screen the coarse slag that exceeds 2½ inches passes to a No. 7 gyratory crusher, which is set to make a maximum of 2½-inch slag. A large percentage of the shovel-run slag that has been broken by blasting and steam-shoveling in loading is removed by the scalping screen and goes direct to the hopper that feeds the elevator leading to the screening-room. Thus the capacity of the crusher is greatly increased. The slag, after being elevated to the screening-room, passes through a big revolving screen, where sizes No. 2 (2½-inch to 1½-inch) and No. 3 (1½-inch to ¾-inch) are made and pass direct to the storage bins. No. 5 (¾-inch to dust), which has been screened out of the above sizes and passes over to two Mitchell electric vibrating screens, is reduced to three sizes—No. 4 (¾-inch to ½-inch), No. 6 (½-inch to ¼-inch) and No. 7 (¼-inch to dust).

This plant, like that at Ensley, is electrically operated

throughout, and all machines are direct-motor connected, eliminating as near as possible all delays. Its location means much to the users of mineral aggregate in North Alabama, Northern Georgia and South Carolina, because of the fact that to most points a saving in freight rates is effected over present published rates from the Ensley plant.

## New State Capitol for West Virginia to Receive Consideration—Temporary Structure Will Be Erected at Cost of \$60,000.

Charleston, W. Va., January 10.—[Special.]—Nothing definite will be known as to the steps to be taken to build a new Capitol for West Virginia until after the Legislature acts. Under the constitutional amendment recently adopted in West Virginia, the Legislature can pass no bills not of an emergency nature at the short session beginning January 12, a recommendation from the Governor and a four-fifths vote also being required to enact measures into law at the first, short session. It is believed, however, that the Governor will recommend consideration of a measure to provide for a new capitol in his biennial message, and that the Legislature will take some action looking toward the erection of a new building to house the various departments of the government now scattered all over the city of Charleston.

Even if provision is made for a new capitol, it will be several years before the building will be ready for occupancy, and in the meantime a temporary structure will be erected at a cost of about \$60,000.

## Huntington Tobacco Market Opens With Higher Prices.

Huntington, W. Va., January 8.—[Special.]—Scenes and conditions at the opening of the Huntington tobacco market on January 5 were in sharp contrast to the opening of the Lexington market, as prices were much higher than tobacco growers had expected in view of what transpired there. The average ranged from 22 to 25 cents a pound, and in some instances reached 55 cents a pound. When the market opened Wednesday morning there were more than 200,000 pounds of tobacco on the floors of the three warehouses at Huntington, 75,000 pounds of which were sold during the day. With 20 buyers present, representing as many large tobacco manufacturing concerns, bidding was spirited, and that tended to increase the price. Between 800 and 1000 tobacco growers were present also at the opening, the large number of people on the floor interfering somewhat with quick buying. The minimum price paid was three cents a pound for tobacco left over from last year. The general run of prices was well above \$20 per 100 pounds. A price of 30 cents a pound was not uncommon, and a number of sales were made at 40 cents a pound.

The Huntington market will remain open until about April 1, and it is thought the prices brought at the opening will lead many growers from some 20 counties in the tri-State region to bring their tobacco to the Huntington market. It is estimated that fully 400,000 pounds, in addition to the 200,000 pounds on hand at the opening of the sale, will be brought to the Huntington warehouses before the market closes.

## Savings Bank Report.

The annual report of the Citizens Savings Bank of Baltimore shows a flourishing condition, the funds on hand December 31, 1920, being \$6,263,150.90, an increase of \$342,866 during the year. The assets (\$6,266,150.90) consist of bonds and stocks, \$4,269,313.58; loans on mortgages, \$1,322,890; loans on collateral, \$317,280; cash on hand in banks and trust companies, \$287,610.65, and several smaller items. The amount due depositors, including interest credited January 1, 1921, is \$5,890,070.65, and the guarantee fund and undivided surplus amount to \$376,080.25. The bank received from its depositors during 1920 a total of \$4,671,957.34, and it paid its depositors, including interest, a total of \$4,568,492.43. Its receipts from interest and dividends on stocks, bonds, loans, etc., for the year amounted to \$300,748.30. The number of accounts is now 8535, a net increase of 155 for the year. Charles Spilman is president, and William Spilman, treasurer.



## JACKSONVILLE A WORLD PORT.

### American Shipping Corporation Vessel Arrives at Florida Port After Circling the Globe.

Jacksonville, Fla., January 4—[Special.]—The steamship West Hembrie, an 8800-ton Shipping Board vessel, arrived at her home port January 3, after having completed a successful cargo-carrying tour around the world. This puts Jacksonville on the maritime map of the world, and indicates that South Atlantic ports are to become real factors in the world's maritime commerce.

The West Hembrie, under the management and operation of the American Shipping Corporation, left Jacksonville February 19 last year with a cargo of cotton and naval stores for Kobe and Yokohama, Japan, the naval stores being loaded at Jacksonville with a part of the cotton and the balance of the cotton at Savannah.

The route of the West Hembrie was from Jacksonville to San Francisco via the Panama Canal, then to Yokohama, Kobe, and Mogi for bunkers. At Saigon, China, she took on a cargo of rice and proceeded to Singapore, Colombo, India. Thence she sailed to Port Said and proceeded to Antwerp with a cargo of wooden ventilators and rice, which she took on a Saigon. From Antwerp she went to London and loaded a cargo of chalk, which she took to Portland and Philadelphia. After undergoing repairs at Philadelphia she steamed for Jacksonville.

The West Hembrie is the first vessel to carry the house flag of a South Atlantic port around the world. The original bunting, with the insignia of the American Shipping Corporation, very much soiled and almost in ribbons, was still floating from the peak when the vessel tied up at her berth in Jacksonville, where another full miscellaneous cargo is ready for her for Liverpool.

The American Shipping Corporation is the largest operator of Shipping Board vessels in South Atlantic waters, having 26 vessels in operation. Nine of these are operating in Cuba and the West Indies, and the balance to the United Kingdom and continent of Europe, South America and the Far East.

### Texas Wool Growers Plan to Establish Warehouses.

According to information received from the Commercial Association of Galveston, Tex., plans are progressing for establishing warehouses for storing and sorting of wool in order to insure the wool growers best prices for properly-graded materials and to afford an opportunity for co-operative marketing.

H. H. Haines, general manager of the association, writes the MANUFACTURERS RECORD as follows:

"The wool growers of Texas have discovered that haying to ship their wool long distances to markets, without their having had a reasonable opportunity for inspection, classification and grading, is costing the wool producers a very large amount of money, and they have reached the conclusion that the maintaining of a central warehouse somewhere at an interior location en route to ultimate destination, where their products may have the attention required to properly grade, classify and prepare them for market, is desirable in their interests.

"They are also of the opinion that such a warehouse would afford an opportunity for co-operative marketing, and these, briefly, are the reasons which, as we understand it, have actuated the wool growers of Texas in their effort at the establishment of such a central warehouse.

"The location for the warehouse has not as yet been determined upon."

### Crane Company Employees Get Bonus.

Birmingham, Ala., January 3—[Special.]—The employees of the Birmingham branch of Crane Company received about \$30,000 of the \$2,000,000 distributed as bonus for the past year, the distribution taking place during the last week of the year and equaling 10 per cent of earnings of each employee. A number of men are employed by the big company in the Birmingham district, a factory and big warehouse and salesrooms being conducted here. J. G. Johns is manager.

## War Finance Corporation Can Conduct Business.

By EUGENE MEYER, JR.

Ever since the resolution directing the resumption of the activity of the War Finance Corporation, in connection with its authority to lend in aid of export trade, was finally passed by the Congress, press reports have contained misleading rumors and statements designed to impair the successful operation of the Corporation.

It has been stated that nothing could be done for two months; that a new appropriation would have to be made; that no business could be done until the two vacancies on the board were filled; that good security cannot be obtained, besides a number of other statements equally incorrect.

The fact is that the board of three can transact any business now in the same way that it always could. Naturally, if more business is presented to the board requiring more work, more members on the board will be necessary. No new appropriation is needed, the fully paid-up capital stock of the Corporation now being intact and on deposit with the Treasury, except that part which is still loaned out in connection with advances previously made during the war and subsequently, or such other part of the funds as may be invested in Government securities. Funds may be provided in addition by sale of the Corporation's bonds, for which there would be a good demand.

The Secretary of the Treasury, in reply to inquiries before the Joint Agriculture Committee of the House and Senate, and before the Banking and Currency Committee of the House, stated that if the resolution was passed and if the Congress made mandatory the resumption of the War Finance Corporation, he would proceed to carry out the mandate to the best of his ability and in entire good faith. Some of the press reports choose to ignore this statement of the Secretary of the Treasury, which, of course, should not be questioned.

Resumption of the War Finance Corporation, according to information received by me from interior points, has already had an effect in the restoration of confidence in a disturbed situation. It is to be hoped that a continuing increase of confidence may result in a restoration of the normal movement of goods and commodities, thus releasing the vast quantity of domestic frozen credits.

In spite of the dire predictions as to the effect on the Government bond market of the passage of the resolution directing the resumption of the War Finance Corporation, the Government security market has been absolutely buoyant. Exchange has risen sharply, and among other reasons I believe the resumption of the War Finance Corporation has had its part.

Letters which I have received from all over the country from merchants, bankers and railroad officials indicate a general spirit of approval of the action of the Congress and an increased hopefulness for the future based upon an appreciation of the fact that the resumption resolution was passed as a constructive measure.

Tangible prospects of important export business have come to my notice, consideration of which is made possible by the resumption of the War Finance Corporation. It would be premature, however, to discuss details.

### Ship Plant Busily Engaged on Repair Work.

New Orleans, La., January 8—[Special.]—Despite the fire which recently destroyed a portion of the dry dock and ship-repair plant of the Jahnecke Dry Dock & Ship Repair Co., Inc., here, operations have been but little interrupted. On Christmas Day one of the largest oil tankers that ever entered the harbor was docked, and work is now being pushed on repairs to 12 different vessels. The fire damaged the two dry docks and destroyed the wharf, and within a few months it is hoped the work of rebuilding the wharf and necessary repairs to the dry docks will have been completed.

The portion of the repair plant, including the marine and plate shops, boiler, tin and joiner shops, which are in fireproof structures was not damaged.

At the National Marine Exhibition, to be held in New York on January 24, the company will have an exhibit of their plant as it is today, and will show the character of work they are doing. The officers of the company are: Ernest L. Jahnecke, president; Paul F. Jahnecke, vice-president, and Walter F. Jahnecke, secretary and treasurer.

# Borrow and Develop Policy Better Than One of Deflation

MR. MORTON FREWEN POINTS OUT MANNER IN WHICH CONDITIONS DURING OUR "RECONSTRUCTION" PERIOD WERE MET, AND URGES THAT METHODS THEN PURSUED BE ADAPTED TO PRESENT CRISIS.

[Mr. Morton Frewen characterizes the cosmopolitan "deflation," which "appears to have been inaugurated by the economists at Brussels" as a task utterly impracticable, and after a heartbreak "likely to lead us through the fires of Revolution."

He draws a comparison from the conditions surrounding the "Reconstruction" period following the Civil War, and urges the nation to "borrow and develop," as "when dealing with such an empire as ours there is no other road to fiscal salvation."—Editor Manufacturers Record.]

By MORTON FREWEN.

The Great Napoleon once declared that "the economists are an accursed breed; there is no State so powerful but they can destroy it." Our nation is now endeavoring to liquidate an unprecedented debt by way of direct taxation and at the same time by "deflation" to reduce prices and the cost of living without reducing wages. The task is utterly impracticable, and after a heartbreak is likely to lead us through the fires of revolution. The effort, though splendidly honest, really marks the bankrupt condition of modern statecraft. Deflation in the throes of such a crisis is not to be thought of.

What is a national debt? It is a blanket mortgage on the assets—on the industries of the debtor community. The farmer pays the interest on his share by sales of his bullocks or wheat, the ironmaster by sales of iron, the coal owner or timber merchant by sales of these commodities. If prices are rising, then less bullocks, or iron, or coal, or timber will pay each capitalist's share of the debt and more remains of the gross wealth product with which to pay wages. The higher the rate of wages, the better business must be all around, because the more there will be on the Saturday for the housewife to go shopping with. It is in this way that the money begotten of high prices and profits permeates as the shops fill.

When Cleveland was elected President of the United States, in 1884, prices the world over had been for 10 years falling rapidly thus aggravating the burden of all debt, whether national or mortgage debt. The President-elect, in the four months before his inauguration, in that period of purgatory through which the United States is now passing, had proposed to contract the United States currency by a further prohibition of the use of silver as money, its disherison in 1873, in the opinion of almost every student of economic science, being the fons et origo of the great shrinkage of values which was plaguing and puzzling the whole world. The world was writhing in the coils of a metallic constriction as during the two centuries, 1650-1850, before the great gold discoveries in California. The writer, who had sat at the feet of Fawcett in the early seventies at Cambridge, when Fawcett was warning his classes of the great exchange crisis at hand because of the closing to silver of the mints of the Latin Union, had been encouraged in his alarm by Goschen, who fully shared Fawcett's alarm and had described universal gold standardism as "that mischievous utopia."

Chancing to be in Chicago in '84, I had there met Senator Beck of Kentucky, and we two, with General A. J. Warner, a Congressman from Ohio, and Senators Jones and Teller, had drafted a joint remonstrance with the President-elect. We pointed out to Mr. Cleveland that the United States national debt at the close of their Secession War had been about 500,000,000 sterling; that reduced from 500,000,000 sterling to 240,000,000, yet to pay off by a tender of 18,000,000 bales of cotton or 25,000,000 tons of bar iron. But while the principal sum of this vast debt had been reduced from 500,000,000 sterling to 240,000,000, yet to pay off the half that remained unpaid would still require of the debtor classes, because of the great fall of prices, 30,000,000 bales of cotton or 32,000,000 tons of bar iron. We also endeavored to make it clear on a priori grounds, for at that time we had very little statistical data to guide us, that the great fall in the silver exchanges with 800,000,000 of Asiatics exposed the markets of America and Europe to a subsidized competition bred of Asiatic exports, while at the same time the great fall in the rupee, the

"Mex" and the tael exchanges was likely to make it increasingly difficult for Asia to buy gold (exchange) on Chicago, New York, London or Paris, and thus to buy the goods of white workers. I think that now confronted with the complete wreck of the foreign exchanges, the debasement of our silver currency from the ratio of 925 thousandths, which dates from the days of "Good Queen Bess," to the ratio of 50, and the scores of object-lessons available, there are few merchants today who would find fault with our diagnosis or with the vivid alarm our small group in Chicago began to express in the winter of 1884.

That occasion was not quite my first meeting with "Jones of Nevada," the most picturesque figure who ever adorned the Senate in my time. Jones was born in Wales in 1826. He emigrated to the south shore of Lake Ontario, a child in arms. With the first discovery of gold in California he and his brother built a boat and navigated their shallop 'round Cape Horn, arriving safely at the Golden Gate in 1849. In the placer mines Jones amassed a considerable fortune, and in 1872 was elected to the Federal Senate from the then new State of Nevada. How such a life spans the arches of our time! From the Ministry of Lord Liverpool to the Presidency of Roosevelt, who was devoted to this lone survival, the very last of the Buffaloes. My old friend Jones has gone "over the range," as also have his three colleagues—Beck and Teller and Warner. The world is the poorer for their passing. But let me put on record my affectionate appreciation of the many delightful hours that chance reconte at the Palmer House was destined to secure me for the subsequent quarter of a century. When Jones had retired from public life, little Senator Mahone of Virginia well voiced our joint griefs. "What sort of a place is Chamberlin's, or even Washington, without John P. Jones?" said the little "Readjuster" to me.

I have pointed out that in the year 1864 the United States emerged from a bloody Civil War with a ruinously disorganized currency and with some 500,000,000 sterling of debt. This unprecedented burden she proceeded to pay off in spite of a great world fall of all prices (whatever its cause) and with an almost humorous light-heartedness. The great Republic possessed, it is true, what Mr. Robert Benson, in an admirable speech to the Merchants' Trust last March, described as "an incomparable estate, but still an estate not incomparable vis a vis the resources of our British Empire." If we mass those resources at a time, too, when prices are rising inexorably, truly our empire estate is really incomparable. Mr. Benson last March had this to say of American reconstruction:

"Americans set to work with equal promptitude and energy; but in order to get out of debt they had first to go deeper into debt. Whereas the United States was left with a public debt in 1865 of £500,000,000, they went further into debt for reconstruction during 1865-1869 to the extent of £300,000,000. They developed productive industry all over their incomparable estate, and they permitted no forcible contraction or deflation of currency and credit to block the way."

I should be inclined to qualify the statement in the last line, but no matter.

And what were the immediate effects of this wise and far-sighted policy—a policy, to be sure, denounced as sheer lunacy by the economists of the press, and which increased the national debt by some 60 per cent in the first five years of peace? The

revenues of the republic expanded magnificently, while side by side and with fresh and vast borrowings taxation was reduced as never before or since. In his "Autobiography of Seventy Years" (Volume I, page 251), Senator Hoar of Massachusetts, the father of the American Senate, has this to say of those vast tax remissions which made so memorable the years 1865-1872. He wrote:

"The Worcester district, which I represented, paid in the direct form of taxes to the national treasury the enormous sum of \$3,662,727 for the year ending June 30, 1866. For the year ending June 30, 1872, they amounted to about \$100,000."

Mr. Benson proceeds to quote the well-known economist, Mr. David A. Wells, as pointing out in an official return to his Government that the United States during their first four and a quarter years of reconstruction (April, 1865-1869) raised by taxation and spent \$1,908,000,000, whereas their expenditure for administration was \$425,000,000 only.

May there not be, after all, some subtle subactivity in the enthusiasm of the Detroit poet, Edgar Guest?

"There's no truer friend than debt  
Wisely made and fairly met;  
Debt which marks a distant goal  
Is a builder of the soul.  
Debt which means some worthy end  
Is a staunch and loyal friend."

Lord Milner of all men has seen the results of huge borrowings, if not "wisely made," at least "fairly met" in the case of modern Egypt! And so lately as 1916 his view of debt liquidation was expressed in words which will bear repetition at just this time:

"It seems to me that it is quite impossible to contemplate the burden of debt which will rest upon the whole empire, not only on this country, but on the dominions, when the war is over, and to imagine that we shall be able to carry by existing methods of taxation that fearful burden. We have at present only one string to our bow—taxation; and for my part I think it insufficient." Lord Milner proceeds to urge that "we must make up our minds that we have got to travel toward the idea of the development of the State by the State for the State—the development of our national and imperial property."

Borrow and develop. When dealing with such an empire as ours there is no other road to fiscal salvation. Take up this tale where John Quincy Adams and Alexander Hamilton, and List and Bismarck, and now Lord Milner, have left it, if, indeed, the last named has left it. "Democracy," as Lord Milner said, "has got to find a second string to its bow."

Thus the greatest possible interest attaches today to the various "index numbers" of prices. I pointed out in your columns some months since that the then accepted valuation of the assets of the United States was \$500,000,000,000, and that the public debt of the United States secured on those assets was rather over \$24,000,000,000, or 4 per cent. The recent fall in prices, owing to that cosmopolitan "deflation" which appears to have been inaugurated by the economists at Brussels, no questions asked—this subtle and subterranean movement—has already so reduced the money value of United States assets that now the burden of the debt, which was 4 per cent, has been increased to perhaps 6 per cent, and our own empire debt, which at the scale of prices last June was reckoned in the congressional discussions at \$47,000,000,000, or 30 per cent of our empire assets, may well have been increased to 35 per cent now. What possible hope is there that the nations can ever liquidate the principal sums of such debts, let alone restore their exchanges to any metallic par, whether gold or silver, if our price level is to be tampered with by deflations of credit and currency on any such scale as at present?

The "First Federal Banking Association" chartered under the "Edge Law," so called after Senator Edge of New Jersey, in its "Bulletin 2," issued September 27, warns us that the League of Nations contemplates a world-wide campaign to restrict bank credits in order to bring about "reduced production and the liquidation of commodities." The MANUFACTURERS RECORD, commenting upon this new campaign of contraction, says:

"One year ago there was abounding prosperity

throughout this country. Every factory was crowded to its utmost capacity, with a ready demand for its output. Today factories are closing; tens of thousands of laborers are being discharged; within the last three months the value of farm products has been reduced to the extent of \$7,500,000,000, bringing poverty to millions of farmers in every part of the land."

Such are the results of the first turn of the cosmopolite screw to "deflate," and still the cry of the deflators is for the cup and the leech—"More, more!" From every quarter of the globe comes this new and unexpected cry of distress.

## A Suggestion to Labor Leaders.

Baltimore, Md., December 30,

Editor *Manufacturers Record*:

The union labor leaders have an opportunity they may never have again to gain the good-will of the public, an asset of inestimable value to them for all time. All they have to do is to recede from their untenable position they now hold and give wise counsel to the laborers they are supposed to control. Let them educate their followers to be conservative and tell them they must recognize the change which has come over all conditions heretofore created by the war. Teach them that their wages must come down, like everything else, and let them be told to make the decline in wages gradual by co-operating with their employers. Make them understand that through their employers they receive their wages, and they must do everything they can to increase the profits of the business of the country by working efficiently and not to loaf on their jobs. Is it not better for the wage-earner that he takes less pay and be at work than to hold out for high wages, and thus lose his job?

Many years ago I had the good fortune to employ a great many laborers in the plants I controlled, and I made it a rule to mingle with my employees, get acquainted with them, and encourage them in their work. They became fond of me, and would come to me not only to consult me about their work, but about their domestic affairs, and I tried to give them sound advice. This was, however, before the union leaders had taken control of the labor situation. Now that these latter gentlemen have assumed control, let them do what is best for their men and encourage them to cultivate thorough friendship between employer and employee, and each then will work for each other's good.

WM. C. SEDDON.

## Virginia's 1920 Crops Valued at \$239,792,000.

Richmond, Va., January 8.—[Special.]—According to Henry M. Taylor, field agent of the United States Bureau of Crop Estimates, crops raised in Virginia during the year just ended were worth \$239,792,000 at the regular market prices on December 1, and the State advanced from 24th to 23d place.

The estimate shows a decrease of 31 per cent over last year's crop value of \$347,962,000. Corn is the leading crop on total value, although the value per acre goes to tobacco. The total value of the corn crop was \$50,100,000, while tobacco values at market prices equal \$42,574,000. Value of the hay crop is estimated at \$29,022,000, wheat at \$20,565,000, and potatoes \$12,928,000.

Tobacco value to the acre harvested averaged \$175.20, compared with \$270.18 in 1919. Potatoes come second with an average value of \$102.60 to the acre, compared with \$149.15 in 1919. Cotton and peanuts, due to the yield and decline in price, showed the greatest decrease in value to the acre. Peanuts show an average value of \$43.52 to the acre, compared with \$111.33 last year, while the average acre of cotton at the market price is but \$34.40, compared with \$89.25 in 1919. The average acre of hay was worth \$30.55, compared with \$35.55 last year. Corn showed a value of \$30 to the acre, representing a decrease of \$17.32 over last year.

The bank deposits of nine of the largest banks in Charleston, W. Va., increased \$10,303,788.38 last year. Postal receipts for the year 1919 were \$481,290.58. At the end of 1920 they had grown to \$1,087,427.



## OIL AND GAS STRUCK NEAR CHARLESTON, SOUTH CAROLINA.

Quality and Quantity Not Determined—Keen Interest in Discovery.

Charleston, S. C., January 10—[Special.]—Oil and natural gas have been struck at Summerville, near here, but drilling has not progressed to such a stage that the quality or quantities can be determined. The drilling is going forward under the direction of M. C. Burton, formerly of Philadelphia. The well, which is known as the "Mabeleanor," has been sunk to a depth of over 3000 feet, and will probably go to 2500 feet.

The work is being done by hollow stem rotary drill, and water under pressure is forced down the drill to wash up whatever material is dislodged, and it is believed that the oil will not appear in quantity until this pressure is reduced and the casing made watertight. The first oil appeared about a week ago, and the showing of oil appears to be steadily increasing.

Regarding the discovery at Summerville, Albert J. Stowe of the Chamber of Commerce at Charleston wires the MANUFACTURERS RECORD as follows under date of January 10:

"Crude petroleum and natural gas, exact amount of which as yet is undetermined, has been struck at the eastern limits of Summerville, about 20 miles north of here. Well from which this is flowing, the Mabeleanor, is on property owned by a syndicate headed by M. C. Burton, trustee, of Charleston. Sinking of well has reached a depth of 2047 feet. On the strength of this announcement, Summerville property-owners are holding their real estate at approximately 500 per cent increase over what it was regarded as worth last week.

"According to Mr. Burton, the commercial value of this discovery has not been determined, and at present samples from the flow are being analyzed at the Parker Laboratory in Charleston. The operators and drillers are said to be of the opinion that if the well were baled and the water pressure removed it would be a producing well.

"It has not been definitely decided whether to proceed with baling of the well or to sink it farther to a possible depth of 2500 feet. Great interest is evidenced in what the decision of the syndicate will be regarding this. Meanwhile, hundreds of Charleston people and others from various parts of the State are visiting the Mabeleanor, all intently hoping that the well may prove itself of real commercial worth.

"Maurice C. Burton recently spent four years in Philadelphia, where he became interested in the Pennsylvania oil fields. He returned to Charleston not long ago, and noticing certain indications common to the Northern oil lands on the Summerville property which his syndicate owns, proceeded to have the well sunk."

## South Carolina Potato Crop Valued at \$9,600,000.

Charleston, S. C., January 8—[Special.]—It is estimated that the Irish potato acreage amounts to 31,450, and the total production 3,200,000 bushels, with an approximate value of \$9,600,000, according to figures compiled by B. B. Hare, agricultural statistician, Bureau of Crop Estimates. Estimates indicate that about one-third of the potato crop is grown for commercial purposes. The yield per acre was greatest in Charleston county, being 125 bushels, and the next county, Beaufort, averaged 115 bushels to the acre. About 4000 acres of land was planted to potatoes in each of the counties of Charleston and Beaufort.

## Five Sheet Mills Resume Operations.

Wheeling, W. Va., January 8—[Special.]—Of the 14 mills of the Whitaker-Glessner company operating in this section, five were scheduled to resume operations on January 10. All the mills of the company had been closed down since the 18th of December. It is considered probable that the tin mills owned by the company will be dismantled and sheet mills built in their stead, so that all of the 14 mills of the company will be sheet mills.

## Johnson Bill Prohibiting Immigration for One Year Unanimously Endorsed by George Washington Society of America.

Unanimous approval of the Johnson immigration bill, recently passed by the House of Representatives, and now before the Senate for action, was given by the George Washington Society, a patriotic organization of national scope, with headquarters in Baltimore, at a special meeting held in the Hotel Emerson on Friday evening, January 7.

The society accepted the Johnson bill in accordance with the recommendations of the committee on immigration, the full report of which committee was published in the MANUFACTURERS RECORD in its issue of January 6. Copy of the resolution approving the committee's report was ordered sent to the Senate of the United States, with request that that body act favorably upon the bill, and the society also sent formal notification of its action to the Sons of the American Revolution and to other patriotic bodies, that there might be uniformity of national action in this direction.

It was the sense of the speakers at the meeting that the immigration question is one of vital importance to the nation of which comparatively few have a true realization; that it is imperative that a check be put upon the flood of undesirables from Europe until we as a people have time to study the question and prepare for the assimilation as citizens of those clamoring for admittance.

Mr. A. S. J. Owens, former State's Attorney, made an eloquent address in refutation of those who hold that we, the American people, are simply trustees for the land we hold. He showed that every foot of continental United States was held by the people in fee-simple, with a deed duly recorded in the archives of the world. We have bought and paid for it all by our blood or money, said Mr. Owens, and the theory of trusteeship will not hold water. Mr. Owens used a map presented to the society by Representative Carville D. Benson to illustrate his remarks, which map was formally accepted by the society and filed with its archives.

That a fuller realization of the national scope of the organization might be had, it was decided to change the name of the society to the George Washington Society of America. This change in name will, under the constitution, be voted upon at the next regular meeting of the society.

## Southern Stockmen Win 175 Prizes.

Nine grand championships were won at the 1920 International Livestock Exposition in Chicago by breeders from Southern States, the winners being: J. N. Camden, Versailles, Ky., Hereford bull "Principes Domino"; Dr. J. I. Huggins, Dandridge, Tenn., Aberdeen-Angus bull "Perinthian"; G. C. Parsons, St. Matthews, Ky., Aberdeen-Angus cow "Queen Milly of Sun Dance 3d"; E. E. Mack & Son, Thomasville, Ga., Poland-China boar and sow; B. P. Evans, Shelbyville, Tenn., Hampshire boar and sow; J. N. Camden also won the grand championship ribbon on his Hampshire ram and Hampshire ewe.

In addition to these highest of all awards in the respective breeds, the South carried off 166 other prizes, thus surpassing the record made in 1919, when the South carried home blue ribbons on Hereford bull, Shorthorn bull, Aberdeen-Angus bull, Duroc-Jersey boar, Poland-China sow, Hampshire ram and ewe.

In speaking of the remarkable sowing made at the International two years in succession, General Agricultural Agent Roland Turner of the Southern Railway system, Atlanta, Ga., says:

"This demonstrates that Southern climate and feeds are exceptionally well adapted to the production of the highest class of all kinds of domestic animals. When this is considered in connection with economy of production, due to the long grazing season, the abundance and variety of forage crops and proximity to markets in the great consuming centers of the United States, with excellent transportation facilities, growers must recognize that there is no section of the country where meat production can be carried on more profitably than in the territory south of the Ohio and Potomac and east of the Mississippi."

The ninth annual meeting of the Chamber of Commerce of the United States will be held at Atlantic City April 27, 28 and 29.

# NEWS AND VIEWS FROM OUR READERS

[Publication in this department of letters from our readers does not mean that we either approve or disapprove the views expressed. We believe in a full and frank discussion of the mighty questions of the hour, for only in this way can the truth be found. Therefore we often publish letters with which we do not agree.—Editor Manufacturers Record.]

## Work of Federal Reserve Board in Killing Confidence

J. R. RAGSDALE, Church Road, Va.

I have noticed with close interest your stand and views in regard to our present moneyed situation, and no doubt if they were carried out would give relief.

It seems to me that never before did a bunch of leading men such as our Reserve Board go to work to kill confidence in business, which is one of the biggest assets in our dealing with man to man, and one that the Government certainly needs most at this time.

There never was a more farcical statement gotten out than that by Governor Harding last spring. It certainly exhibited his weakness and his incompetency to hold such a trusted position as his. He laid special stress on the increase in bank loans to its customers, which he stated was an excess of 14½ per cent during a period of one year, and the increase in price of commodities, which he warranted was sufficient proof that the Reserve Board should change its policy at once and which they did. This was what the big interests wanted, so they assisted the Reserve Board in bringing about their ruinous policy of liquidation. They knew this was the only policy by which they could force labor back 20 years, and at the same time gobble up the wealth of country. Where they would lose one dollar in the curtail of business they would make ten by the liquidation of commodities and the coercion of labor, which they desired so much.

When in the summer the different industries began to call on the Government for financial assistance, the Reserve Board stated that all such accommodations were being given as were needed. Any one-horse farmer knew this was not so, but in the face of all the appeals that was made the board struck out that they were supplying all the assistance that was needed.

Later in the fall the Comptroller of the Currency gave out a statement in which he stated that the trouble was with the rate of call money in New York, which was still further evidence that the finance of the country was being handled by certain big interests.

There is another view which Mr. Harding omitted in his statement last spring. During the war the Government was spending such large amounts that money was plentiful, and that most every line of internal improvements were abandoned, and that commodities were used up very closely in supplying our own needs and our allies, and during this period the Reserve Board had done such splendid work in financing our Government that the average business man was of the opinion that at last we had a barometer for business, and one that was dependable, and never before had the confidence of the business in general trusted to any banking system as had they trusted the Reserve System.

With a scarcity of commodities and the internal work that had to be accomplished, and every man planning to do more than he had ever done before, is it surprising that the price of commodities advanced and that it took more money to meet these conditions?

Take the agricultural end; with a labor shortage of 33 per cent this year they produced a bumper crop. I dare say, if they get all the labor they want, the crop another year will fall off 33 per cent.

No doubt the War Finance Corporation will help the situation, but it will take time. To my mind, what is needed most is an entire change in the Reserve Board to put money where it is needed. It will take considerable more to get business going back now than it would have last summer, for it is always easier to tear down than to build up.

There is a lot of talk about helping the farmer. Restore the Federal Land Bank, so he can get money at a decent rate, not paying from 8 to 20 per cent. In marketing his crops have bonded storage sufficient to take care of his product, grading it and giving warehouse receipts, loaning him a certain per cent on

these. This will do more to stabilize his product, and at the same time cut out the cornering of foodstuff by the speculator; also help the consumer and business in general.

I am no lawyer or merchant, but just a plain farmer, and laboring under the most adverse conditions imaginable, and having read your editorial, I decided to write you my views.

## The Suffering Caused by Systematic Deflation.

JAS. A. MARTIN, Johnson City, Tenn.

I notice that report of Reserve banks (12) condensed report shows that these banks deflated money to the extent of \$-9200,000 in one week, with an urgent demand for money with which to carry on the business of this country.

You will see a statement of this as published in New York Times of January 2, 1921.

You will also see in this paper a general reduction of the earning capacity of these banks, brought about by this deflation system.

If this deflation is kept up much longer, most all of the businesses of the South and West who have had to borrow any money at all will be bankrupted.

No increase in business can be expected so long as this contraction of good Federal Bank money is being deflated, as the deflation of money also deflates all kinds of business.

The South and West are being systematically ruined, and some means should be found to call the business interests together, to meet at Washington, and demand that this deflation stop, and that these banks function per the law under which they were created, as required of them.

That law stated that these banks were set up to supply the demands for money, and not to contract when money is so badly needed.

I hope that it is in your power to get the South and West to take drastic action.

These two sections produce most all raw materials, and are being systematically robbed for the benefit of the money-lending section of the North.

## Encouraging Industrial Situation in Fort Worth.

ROSCOE ADY, Industrial Commissioner, Chamber of Commerce, Fort Worth, Tex.

The United States Navy helium gas plant, which has been completed at a cost of \$5,000,000, will be ready for operation during the next month.

The Warren Wagner Supply Co. is making good progress with its plant for the manufacture of drilling tools, which will be ready in about a month, and in which it is investing \$500,000.

The Transcontinental Oil Co. will have its lubricating plant completed within the next month or six weeks. It has spent more than \$1,000,000 on the project.

We have secured a building for a paint-manufacturing company, and the papers have been forwarded to headquarters of this company for signature. We expect to be able to announce within the next few days the erection in Fort Worth of a plant by a steel and iron company which will cost \$1,000,000 to \$2,000,000.

## Will Pave Church Street in Lynchburg.

Lynchburg, Va., January 6.—[Special].—Ten thousand square yards of brick, or the same number of square yards of cement, or 9100 square yards of sheet asphalt with 900 square feet of brick guttering on each side, are called for by specifications for the paving of Church street, between 5th and 13th streets, in Lynchburg. A combination of any two of the three forms of paving may be considered, and the specifications are now ready for submission to bidders. Work is expected to start about April 1.

# THE IRON AND STEEL SITUATION

## Steel Conditions in Pittsburgh District.

Pittsburgh, Pa., January 10—[Special.]—Production of steel ingots in December was at the average rate of about 31,000,000 gross tons a year. It appears that the Steel Corporation produced at the rate of about 21,000,000 tons and the independents at about 10,000,000 tons, representing about 92 per cent of capacity for the corporation and about one-third of capacity for the independents. The corporation continues to operate at about a 92 per cent rate, but the independents are operating at a lower rate than the average of December, and probably at about one-fourth of capacity. The difference is, of course, due to the fact that the independent steel producers went with the general tide in 1920 and advanced their prices, while the Steel Corporation rigorously held down its prices and emerged from the period of activity with well-filled order books, while the independents had little business on books. Some of that was canceled, while some of it was filled, and it is on what little remained that the independents are now working.

In many quarters it was felt that the Steel Corporation was suffering a great loss by holding down its prices, but the heavy operation at the present time is furnishing a considerable amount of compensation, for the independents, with their very light operation, have a high production cost per ton, and, besides, are losing in overhead. It should be noted, moreover, that the profits reported by the Steel Corporation for 1920 were quite large, since after paying taxes they exceeded the best rate shown before the war, and it is commonly believed that the corporation's accounting methods were ultraconservative, so that the profits were really larger than reported.

The present rate of steel-ingot production is about 21,000,000 tons a year by the Steel Corporation and about 7,000,000 tons by the independents, or 28,000,000 tons altogether. This is two-thirds the average rate at which steel was produced during the first three-quarters of 1920, when the market presented an appearance of very great activity and when consumption was considered very heavy. As the operation is now supplied chiefly by the Steel Corporation, it may be presumed that if the corporation had not held its prices down, the production as a whole would now be at a light rate, for there are few industries that are now operating at two-thirds as good a rate as in the first nine months of 1920. Indeed, there is definite testimony to the effect that all the steel now being produced and shipped is not going into actual consumption, some consumers being willing to take more steel than they are using because they consider the price fairly moderate, at least for the nearby future.

## Prospective Steel Prices.

The present finished steel prices, representing the Industrial Board schedule of March 21, 1919, to which the Steel Corporation steadfastly adhered, are about 80 per cent above the 10-year pre-war average of prices, 1904 to 1913, inclusive. According to some standards, these steel prices are relatively low, while according to other standards they are relatively high. Steel manufacturers hold that it is not the price of steel that is restricting consumption so much as it is the price of various other commodities that have to be used in conjunction with steel, including such items in particular as building materials. There is also the matter of wages, which in some industries that consume steel are inordinately high. The steel industry feels, however, that in the next period of activity that comes there will have to be moderate profits all around; that the public will be too discriminating to allow large profits in some industries at the expense of other industries, hence the steel industry will be prepared to do its part. With costs declining as they are now, although there is no possibility of their getting down to the pre-war level, it will be possible to sell steel at lower prices than now rule and still make fair profits, always provided there is reasonably full operation. Operations last year were at less than 80 per cent of capacity, being restricted by the rail strikes and other influences, and costs were exceptionally high.

As to wages, there is no question but that they are to come down, the only issue being as to when reductions should be made.

The last annual report of the Steel Corporation stated that with the advance of February 1, 1920, common labor was up 144 per cent from rates paid in January, 1915, while the average of all employees, including salaried men of all classes, was up 130 per cent. In juxtaposition with this may be set the fact that Bradstreet's index number December 1, 1920, was only 38 per cent above its average for 1915. Steel men point out that the cost of living has not come down proportionately, because retail-store prices do not reflect the reduced prices manufacturers and wholesalers are now receiving, Bradstreet's number being based upon wholesale, not retail, prices. The expectation, therefore, is that retail prices and the cost of living will come down eventually, that wages can then be reduced very considerably, and the employees will be as well off, or better off, than they were in 1920, having a larger purchasing power. With such wage reductions the cost of producing steel would be greatly reduced, and, with other economies that are coming about even now, steel could be sold at materially lower prices than those now ruling, yet good wages could be paid and fair profits made.

The Steel Corporation has shown no signs that it is even considering the matter of wages at this time. Among the large independents only a few have made definite wage reductions, though bonus rates have all been discontinued, and in some cases payment of time and a half for overtime has been eliminated. The real wage reduction is therefore postponed.

If all the economies expected can be realized, say, in the next six months, steel bars, for instance, could be sold at 1.80 cents or 2.00 cents, representing a decline of \$7 to \$11 a ton from the present price of 2.35 cents. A price of 2.00 cents would be 43 per cent above the pre-war average, while a price of 1.80 cents would be 29 per cent above.

There is no prospect that steel prices will experience any decline in the immediate future. There is no business of importance coming out to furnish an incentive. The Steel Corporation has a large amount of business on its books, but the independents could not get that business away from the corporation, nor would they have any disposition to make the attempt. The steel makers will peg along until a situation is developed that needs to be met. At present there is nothing to do but let matters drift. If structural steel were offered as a gift, it simply being required that the recipient put up a building within a specified time, the investor would refuse the gift, being uncertain whether the other materials and the labor could be secured on attractive terms. The readjustment of the country is held to be proceeding rapidly, however, so that in a shorter period than many expect a favorable time will come for investors and others to go ahead.

## Business in March.

One observer whose information and judgment are good predicts that there will be a very substantial improvement in steel demand before the end of March, enough to make things present an altogether different appearance from what exists today, although probably not enough to give the steel industry full employment either at the start, or perhaps for several months.

In the past week there has been practically no business at all, except for an altogether occasional order here and there. What the independent mills are looking for chiefly at this time is not so much new orders as "releases," i. e., there were many cases in the past couple months in which the buyer ordered shipment suspended or postponed, and some of this business may now be reinstated or the tonnage "released."

## Pig-Iron.

Bessemer and basic pig-iron remain at the reduced prices that became effective at the opening of the new year, \$32, valley, for Bessemer and \$30, valley, for basic. Foundry is quotable at about \$33, valley, or \$2 under the quotation regarded as representing the market late in December. So far as costs are concerned, there is no particular reason for foundry iron selling at higher than basic. As to the \$30 price on basic, that is regarded as a fair price under present costs of ore, coke and limestone, all of which are high as compared with pre-war times, while in addi-



tion there are much higher freights to be paid in assembling the materials at the furnaces.

There is no demand for iron, while the market is quieter, on the whole, since there is now little resale iron offered. Before the end of the year there was some reselling to "establish losses" in connection with profits statements to determine taxes to be paid for the year.

### Pig-Iron Sluggish in Birmingham Market—Coal Production Still Healthy.

Birmingham, Ala., January 10—[Special.]—Lower prices for pig-iron has not yet started a buying movement, and while some people are optimistic, predictions are slow as to when there will be a revival in the market. While production is down to minimum, attention is being given to furnaces, relining and other repairing is being done. On the close of the year 16 furnaces in all were reported in operation in this State, and further curtailment in the production is proposed. Three furnaces are undergoing a thorough repairing, and arrangements are being made for the relining and betterment to two other ironmakers. Should there be a revival in business and the accumulated stock of iron started out, it is estimated that at least four furnaces could be started up within 48 hours and four others within 30 days, if not sooner. Announcement of a lower price for pig-iron in Alabama, down to \$35 per ton, No. 2 foundry, 1.75 to 2.25 per cent silicon, was well circulated during the past week. There had been intimations that this price would obtain before the definite announcement, and some few inquiries came to hand. It was expected that the offer to sell iron at \$3 under the Corporation price of \$38 would bring about a general buying movement, but outside of a very few orders the business is yet to start in. Upwards of a month's production is now on furnace yards in Alabama. Consumption of pig-iron in this State, in the home territory, is still lagging, but several industries are scheduled to resume operations within the next two to six weeks, and there will be a healthier melt. Announcement of a reduction in prices on radiators is likely to encourage some business. The plant of the American Radiator Co. will shortly resume operations, after a shutdown since before the holidays. Cast-iron pipe business has not taken on a spurt following the drastic cut in quotations a few weeks ago, though there is intimation that some healthy specifications are being given consideration to and orders placed for the pipe. One of the cast-iron pipe-manufacturing companies in Birmingham, after expressing the belief that the pipe prices recently announced are the lowest that will be noted in a long time, announced that only a limited amount of business would be accepted at these prices. The suggestion was also given out that in times of depression, with so much unemployed labor about, municipalities, counties and others would become patriotic and start in development work to give work to the labor and laying of pipe could be started in with.

Steel-mill operations in the Birmingham district are fairly good. The Gulf States Steel Co. has three open-hearth furnaces in operation again, the blooming mill, the wire mill and the nail mill. The little blast furnace of this company has been on foundry iron recently, and the product offered on the open market. The Steel Corporation mills are doing well, and in some departments it is reported there is enough business in hand to warrant steady operation for many months to come. Rail, for instance, is to be produced to capacity in this district. A large steel foundry is to be erected at Fairfield looking to providing for steel castings for the various industries of the Steel Corporation here. The present foundry at Ensley is to be given over to iron castings. The pressed-steel car works of the Corporation are rapidly nearing completion, and the indications are that there will be a steady output of cars at this point. Considerable steel is still being fabricated for the shipbuilding plant, subsidiary to the Tennessee Coal, Iron & Railroad Co., while there are some export orders yet to be worked up. The Warrior River transportation facilities are being used considerably in the handling of steel shapes to Mobile and for export. The new equipment on the river is being received now, and within another fortnight there will be lacking but two of the self-propelled barges of all the equipment that was ordered nearly two years ago.

Foundries and machine shops in this district are doing fairly well. One of the larger plants is still out of the running, so to

speak, but others are doing well. The Ingalls Iron Works is completing the structural work on two large central sugar manufacturing plants in Cuba, and have other jobs in hand for Cuba, Mexico and elsewhere. The Birmingham Machine & Foundry Co. and the Joubert & Goslin Machine & Foundry Co., two large concerns in their lines, have some big work on hand and more in sight. The Stockham Pipe & Fitting Co. announces establishment of a distributing warehouse in Chicago for better service in distributing wares to five of the Middle-West States. Incorporation papers were filed at Springfield, Ill., to do business in that State. The large plant of this concern in Birmingham is in fine shape, and full operations will be noted before long. Betterments are being worked on at the sanitary pipe plant at North Birmingham, the co-operative plant, and statement is made that plans are now under consideration looking to a big enlargement.

The coal production in Alabama is still very healthy, despite the strike of the union mine workers. More labor is now being offered than can be taken care of. Apprehension is held that if there is not a decided improvement in the coal demand before long operations will have to be curtailed and many men, some of them who have remained loyal to the operators, will be laid off. The steam coal demand is lagging, and even railroads are beginning to instruct producers to hold up on shipments of fuel. The domestic coal demand is beginning to lag also, and though this product has never returned to normal since the strike has been on, there is probability of the output meeting needs. The United Mine Workers of America have spent a tremendous sum in the fight of the strike in this district. The supplies for the men on strike, food products alone, are costing upward of \$65,000 per week, while other expenses are heavy. There is strong belief that a move toward reconciliation may take place this week, though leaders of the union mine workers have insisted that this fight will be to the bitter end. The coal operators make no sign of giving in in the least; say they will never recognize the union and will not deal with the organization. There is no doubt but that the operators could not begin to accept all of the men on strike if the contest was called off this week, there being but few places to fill and the demand for coal not warranting any big effort. Production for the past week went above 300,000 tons again.

Big developments in coal fields of Alabama are now definitely announced. The Alabama Fuel & Iron Co., operating mines at Margaret, Acmar, Acton and elsewhere, are opening new mines in the Cahaba River section, the Central of Georgia Railroad to build a six-and-seven-eighths-mile spur track to reach the development. Labor is now being assembled and a mining camp is being started on nine miles from Birmingham. Three openings are intended, and a coal production of about 3000 tons a day sought. The Alabama Company is pushing its big new mine at Lewisburg, and coal is coming out of the place, though the development has but started. Announcement is made of the organization of the Empire Coal Co., capital stock \$2,500,000, under the laws of Maryland, legal headquarters to be in Baltimore. This company absorbs the Empire Coal Co., the Panama Coal & Iron Co., and takes over coal lands of Walter Moore, trustee, embodying something like 52,000 acres of good coal lands. Developments on the properties already are producing more than 52,000 tons of coal, and Walter Moore, president, announces that development is planned during the year to provide several openings and increase the production very much. The first annual meeting of the new corporation will be held in Baltimore next week. Expectations are that the Government will in the next two years construct another dam on the Mulberry fork of the Warrior River, which will bring about navigable water into virgin coal fields some miles from Cordova, the highest port now on the river, and the Moore interests will participate in the facilities offered. There is also expectation that the Louisville & Nashville Railroad will extend its Cane Creek branch into the coal fields mentioned, the Frisco Railroad now having lines into that section.

The coke market shows very little improvement, though a little tonnage, delivery during the first three months of the year, was sold. Coke prices are still down, \$9 per ton, foundry coke, being considered a good price. Independent cokemakers do not express any expectation for better demand until pig-iron selling revives. The Woodward Iron Co. is making repairs about its by-product plant while operations with that company are curtailed.

The scrap iron and steel market shows no improvement, either;

there is practically no business being transacted. The dealers are now waiting until the first of the coming month before expecting any advances as to renewing shipments on old contracts in hand. There is yet quite a little tonnage due consumers. The slack market for cast-iron pipemakers and in some of the independent steel mills, foundries and machine shops is responsible for the dull old-material market. Quotations have changed none lately, reiteration being heard that the list of prices has but little significance as to the market conditions.

Steady shipments of manganese ore from Brazil, for use in the furnaces of the Tennessee Coal, Iron & Railroad Co. (Steel Corporation) are coming up the Warrior River, the product being brought to the port of Mobile from Brazil. Purchase of the big manganese ore mines in Brazil by the Corporation, making the big company independent so far as this product is concerned, will mean much for the Birmingham district, as it is proposed to bring regular shipments of the ore up to this section.

Quotations for pig-iron and iron and steel scrap in the Birmingham district are as follows:

#### PIG-IRON.

No. 2 foundry, 1.75 to 2.25 per cent silicon, f. o. b. furnaces, \$35 to \$38; No. 1 foundry, 2.25 to 2.75 per cent silicon, \$36.25 to \$39.25; iron of 2.75 to 3.25 per cent silicon, \$37.25 to \$40.25; iron of 3.25 to 3.75 per cent silicon, \$38.25 to \$41.25; iron of 3.75 to 4.25 per cent silicon, 39.25 to \$42.25; charcoal iron f. o. b. furnaces \$50.

#### OLD MATERIAL.

Old steel axles.....	\$22.00 to \$23.00
Old iron axles.....	23.00 to 25.00
Old steel rails.....	17.00 to 19.00
Heavy melting steel.....	15.00 to 17.00
No. 1 R. R. wrought.....	15.00 to 17.00
No. 1 cast.....	21.00 to 23.00
Stove plate.....	22.00 to 24.00
Old car wheels.....	23.00 to 25.00
Old tramcar wheels.....	22.00 to 23.00
Machine-shop turnings.....	10.00 to 11.00
Cast-iron borings.....	10.00 to 11.00

### Production of Iron and Steel Ingots for 1920.

Following is the monthly production of steel ingots from January to December, 1920, as reported to the American Iron and Steel Institute, New York, by 30 companies which made 85.12 per cent of the steel ingot production in 1919:

Months.	Open hearth.	Bessemer.	All other.	Total.
	Gross tons.	Gross tons.	Gross tons.	Gross tons.
January, 1920.....	2,242,758	714,657	10,687	2,968,102
February.....	2,152,106	700,151	12,867	2,865,124
March.....	2,487,245	795,164	16,640	3,299,049
April.....	2,056,336	568,952	13,017	2,638,305
May.....	2,251,544	615,932	15,688	2,883,164
June.....	2,287,273	675,954	17,463	2,980,690
July.....	2,135,633	653,888	13,297	2,802,818
August.....	2,200,645	693,003	5,784	3,000,432
September.....	2,300,417	693,586	5,548	2,999,551
October.....	2,335,863	676,634	3,485	3,015,982
November.....	1,961,861	673,215	3,594	2,638,670
December.....	1,687,162	649,617	3,586	2,340,365
Total.....	26,197,843	8,112,753	121,656	34,432,252

### Weekly Report of Coal and Coke Production.

The weekly coal and coke report of the United States Geological Survey says that the production of soft coal continued to decline during the closing week of 1920 (December 27 to January 1), the total output being estimated at 9,571,000 tons, a decrease of 112,000 tons as compared with the preceding week, notwithstanding that some mines were operated on New Year's Day, while all were closed on Christmas.

Total production for the year 1920 is stated as 556,516,000 tons, as compared with 458,063,000 tons in 1919, but the 1920 figures are subject to revision.

Production of anthracite coal during the week declined slightly. Including mine fuel and sales to local trade, the total output was 1,582,000 net tons. As compared with Christmas week this was a decrease of 44,000 tons, although it was 70,000 tons more than were produced in the corresponding week a year ago.

Preliminary estimates indicate that the total production of anthracite coal during 1920 was 89,100,000 net tons, an increase of about 1,000,000 tons as compared with 1919, but these figures are also subject to revision.

Considering anthracite coal and bituminous coal as a joint supply of fuel, it is revealed that the production of all coal during 1920 fell about 6,000,000 tons short of 1917 and 32,000,000

tons short of 1918, although far ahead of 1916 and 1919, respectively.

With an output estimated at 280,000 net tons, production of beehive coke during the week ended January 1 was practically the same as during the preceding week. Total production during 1920 was 20,833,000 net tons, as compared with 19,650,000 net tons during 1919, the increase being 6 per cent.

All rail shipments of coal to New England during the week continued at about the same rate as during the preceding week.

At the conclusion of the weekly report it is noted that the report of the Administrative Division of the United States Fuel Administration, 1917-1919, has been published, telling of the work during the war period. Applications for copies should be made to the director of the Geological Survey at Washington.

### West Virginia Coal Mines Produced Increased Tonnage in 1920 Despite Many Difficulties.

Charleston, W. Va., January 8.—[Special.]—The total production of coal in this State during 1920 is estimated to exceed by more than 3,150,000 tons the production in 1919. The figures are: 1919, 75,875,493, and 1920, 79,033,346. Of the 36 counties listed as coal-producing counties only eight showed a decrease in tonnage in 1920. These figures have been compiled by the Bureau of Mines, but are not complete, and may be changed when actual production figures are available.

This increase in production was made despite the coal production of 27 of the largest producers in the State for the year falling below that of 1919. The decrease in tonnage produced by these larger companies amounted to 1,444,584 tons, the figures for the two years being 26,929,247 tons for 1919, as compared with 25,883,663 tons in 1920.

### Week's Oil Production in South Shows Decline.

The average daily production of oil in the United States for the week ending January 1 was 1,200,335 barrels, as compared with 1,248,825 barrels for the week ending December 25, according to an estimate made by the American Petroleum Institute, based upon telegraphic reports from company scouts, and in a few instances from pipe-line runs.

Estimated daily average gross production of the mid-continent (light oil) field for the week ending January 1 was 633,270 barrels, as against 664,120 barrels for the preceding week, showing a loss of 30,850 barrels.

Estimated daily average production of the Gulf coast (heavy oil) field for the week ending January 1 was 92,835 barrels, as against 103,835 barrels for the preceding week, a loss of 11,000 barrels.

Combined estimated daily average gross production of 345,250 barrels of the Southwest fields for the week ended January 1 was 726,105 barrels, as compared with 767,955 barrels for the preceding week, a loss of 41,850 barrels.

Oklahoma-Kansas is credited with a daily average production of 345,250 barrels, a loss of 26,350 barrels as compared with the preceding week. North Texas shows a gain of 150 barrels. Central Texas is practically steady at 133,515 barrels. North Louisiana is credited with a daily average gross production of 78,300 barrels, a loss of 4675 barrels. Claiborne parish is estimated at 48,750 barrels, a decline of 675 barrels as compared with the preceding week. Goose Creek, Hull and West Columbia are reported at 15,000, 20,000 and 22,000 barrels, respectively.

Estimated daily average production of Wyoming and Montana is 51,400 barrels, a gain of 2560 barrels as compared with the preceding week.

In connection with the production of the Wyoming fields it is interesting to note that, as stated in the Federal Trade Commission's report to Congress, by far the largest part of the production and refining capacity of the State is in the hands of the Standard Oil Co. of Indiana. Between 65 and 69 per cent of Wyoming's production was in 1919 controlled by the Midwest Refining Co., and the Ohio Oil Co., another Standard unit, controls 27 to 29 per cent of the State's output through its own output and working agreements.

Total production of crude petroleum in West Virginia for the month of November amounted to 656,000 barrels, a daily average production of 21,866 barrels.

# GOOD ROADS AND STREETS

## Improve 30 Miles of Highways.

San Antonio, Tex., January 10—[Special.]—Bexar county set a good pace for road building in 1920, when over 23 miles of highway were given a surface treatment and 15 miles additional were resurfaced, bringing them to a condition equal to newly completed roads. Contracts let for the year under which work is now proceeding amounted to 29 miles of highway on which Federal aid was received. During the year more than \$210,000 was expended in creating new asphalted roads and retreatment of older ones. For further work contracts were awarded involving the expenditure of \$337,638 for roads upon which Federal aid will be applied and \$227,063 for others.

Principal among the contracts now being completed is that of the Goliad road for a distance of 15 miles, and which is now about 60 per cent complete. Included in this contract is paving, resurfacing and application of asphalt, and will entail an expenditure of \$184,185, including all ditching, graveling, shoulder work and other necessary construction work. Beyond the city limits 1800 feet of concrete paving will be laid and 42,313 square yards will be resurfaced, and the remaining stretch of 105,000 square yards will have a one-inch surfacing of rock asphalt. An allotment of \$81,078 was made for this construction from the Federal-aid appropriation.

A second contract now being rushed to completion is a six-mile stretch at the farther end of Pleaston road at a cost of over \$81,000, and this will make the entire road from the city limits to the county line an improved highway with the exception of a two-mile stretch.

The Boerne Stage road is another State highway under construction, extending from the Fredericksburg road at Leon Springs, a distance of about seven miles, northeasterly to the county line. It will cost over \$72,000, and calls for all drainage and the work preparatory to surface treatment, being an entirely new road.

During the year the Bulverde road was retreated for three miles from the city limits at a cost of \$15,700. The Culebra road received 2.14 miles of resurfacing and 4.74 miles of new surfacing, extending from the 11-mile post to the county line. Work completed during 1920 started at the Bandera road and extended to the 11-mile post. It was constructed at a cost of \$38,797, and the new section will cost approximately \$77,000.

Elsewhere throughout the country work progressed at good rate, and will continue throughout this year.

## Fulton County Highways Cost \$1,134,760 in 1920.

Atlanta, Ga., January 7—[Special.]—To build and maintain the highways of Fulton county, of which Atlanta is the county-seat, during 1920 cost \$1,134,760. Of this amount, \$279,332 was expended on Atlanta streets.

These figures are contained in the annual report of the superintendent of public works. One of the most important pieces of construction was putting down a permanent pavement on Pace's Ferry road. To lay 2.26 miles cost \$102,367.65, or \$45,175.48 per mile. Asphaltic concrete was used.

Two concrete bridges were constructed at costs of \$11,147 and \$3694, respectively.

## Good Roads Membership Campaign Under Way.

Norfolk, Va., January 10—[Special.]—A membership campaign under the direction of the Good Roads Association was launched today and will continue until January 18. Every effort will be made to interest residents in every locality in joining the association for the purpose of making the expenditure of road funds provided for under the recent bond issue most effective in solving the State's good-roads problems. In addition, the educational campaign throughout the State will do much toward creating interest in the movement and uniting the various sections so that each one will be benefited to the fullest possible extent.

## Plans for Making Effective \$50,000,000 Bond Issue for State Roads.

Charleston, W. Va., January 8—[Special.]—A joint committee of the Senate and House of Delegates of the Legislature of West Virginia has been in session since January 4, and will remain in session until January 12, when the Legislature is convened, preparing a draft of bills to carry into effect the \$50,000,000 road-bond issue authorized by the voters of the State on November 2. No inkling has been given by the committee as to the various provisions of the bills. Hearings have been limited largely to those of experience in road building in other States, among the first from whom the committee sought advice being John N. Mackall, chief engineer of the Maryland State Road Commission. It is stated that Mr. Mackall discussed the provisions of the road laws of Maryland in great detail, and made many valuable suggestions.

The committee feels that the vote for the bond issue on November 2 left no doubt as to the desire of the people of the State for a State road system. Notwithstanding that fact, however, a very powerful and concerted effort will be made at the approaching session to smother road legislation to as great an extent as possible.

## Greene County Highway to Cost \$215,000.

Springfield, Mo., January 8—[Special.]—Work will commence shortly on the State highway across Greene county. In preparation for the carrying out of this contract the Commissioners of the district recently purchased \$20,000 worth of road-building equipment, including a road-building machine, a steam roller, a five-ton grader and a Russell tractor. While the winter weather will prevent this work being pushed to maximum capacity of equipment, work will begin on a small scale about six miles east of this place, and as soon as weather permits will progress on a large scale.

The Greene county section of the cross-State highway is estimated to cost \$215,000, of which the State and Federal highway departments have contributed about \$130,000. County court and individuals of this district have pledged the remaining money necessary, \$27,000 of the sum being guaranteed by land owners along the route.

The road traverses the county east and west, beginning at Republic and stopping at the Webster county line.

## Repairing Roads in Vicinity of Daytona.

Daytona, Fla., January 10—[Special.]—Rapid progress is reported on the repairing of the Dixie Highway, in Flagler county, just north of the Volusia line, being undertaken by county and State highway forces. At least half of the roadway between the brick and county line in Flagler county is completed, making a fine roadbed of coquina and gravel. Gangs are working south to the county line, and will come as far as Milligan avenue in Volusia. North of Bunnell about one mile of brick roadway remains to be completed.

## Durham County Spends Big Sum on Good Roads.

Durham, N. C., January 10—[Special.]—According to F. E. Schnepf, county engineer, \$711,114.74 was expended on construction of roads and highways since May 1, 1919. This included street and road improvements amounting to 19.95 miles, and graveling, surfacing and retreating other roads to the total of 216,223 square yards. During this year one of the chief features will be a belt-line road about the city, connecting the various county highways.

The annual reunion of those who were identified with the Construction Division of the Army during the war will be held at the Morrison Hotel, Chicago, on February 25 and 26. The membership consists of those who served in the Construction Division of the Army during the war, either in uniform or as civilians. The president is Col. Clark C. Wright of George C. Nimmons & Co., 122 South Michigan avenue, Chicago.



# RAILROADS

## NEW EQUIPMENT PURCHASES.

**\$350,000,000 Bought Last Year—Proposed Expenditures of Over \$170,000,000.**

A total of approximately \$350,000,000 was spent for new equipment during 1920, according to a statement issued by the Association of Railway Executives. The purchase of an aggregate of 45,000 freight cars at a total cost of \$135,000,000 was the largest sum expended for one class of rolling stock. Efforts are now being made to arrange financing for the purchase of a total of 60,000 cars, and contracts have already been awarded to buy 1200 passenger cars at a cost of \$42,000,000. Plans are also being made for the purchase of 1500 new locomotives, to cost a total of \$105,000,000, and 15,000 refrigerator cars, to cost about \$67,500,000. The Pullman Company is building 500 of its cars to meet the public demand for increased sleeping-car and parlor-car service.

Central of Georgia Railway Co. has applied to the Interstate Commerce Commission for authority to issue \$650,000 of 7 per cent equipment trust certificates, the proceeds to be applied as part of the purchase price of engines and cars which cost, it is estimated, a total of \$1,066,123.

Fredericksburg & Northern Railroad of Fredericksburg, Tex., which has applied to the Interstate Commerce Commission for a loan of \$20,000, will, it is reported, purchase a good second-hand locomotive.

El Paso Electric Railway Co. of El Paso, Tex., A. R. Warren, manager, will, it is reported, purchase \$70,000 of new rolling stock.

Lenoir Car Works, Lenoir City, Tenn., are reported in the market for material to build 2500 box cars of 40 tons capacity for the Southern Railway, the material including 5000 tons of shapes, 3000 tons of universal plates, 6000 tons of bars, besides axles, wheels, etc.

Wilmington, Brunswick & Southern Railroad Co. of North Carolina, has applied to the Interstate Commerce Commission for a loan of \$200,000 to meet obligations and to acquire new equipment.

Gulf Coast Lines, Houston, Tex., are reported receiving first deliveries on \$2,500,000 of new equipment.

## Western Maryland Earns Over \$20,000,000.

Gross earnings of the Western Maryland Railway Co. topped the \$20,000,000 mark for the year 1920, according to a statement just published showing the gross revenue as being \$20,219,344 for the twelvemonth. This is by far the greatest total ever reached by the property, and as compared with 1917, the year immediately preceding Federal control of the railroads, it shows an increase of \$6,579,894.24, or 48 per cent. Coal and coke traffic yielded \$10,784,683 of the aggregate, this business displaying a gain of \$4,868,844, or 82 per cent. Other freight yielded \$7,062,806, an increase of \$1,346,688, and passenger business produced \$1,233,613, an increase of \$145,926.

## Proposed Connection.

Application has been made by the Texas Midland Railroad Co. to the Interstate Commerce Commission for authority to build a line 14 miles long from Greenville to Commerce, Tex., for the purpose of making a connection between the northern and southern parts of its line, which are now connected by means of a trackage arrangement with the St. Louis Southwestern Railway.

## Division Improvements.

The St. Louis-San Francisco Railroad Co. is improving its Rio Grande division between Fort Worth and Menard, Tex., by erecting new steel bridges with abutments of concrete, besides laying heavier rails and resurfacing the track.

## RAILROAD WAGES CUT 50 PER CENT.

**A., B. & A. Company Claims to Have Been Losing \$100,000 Per Month.**

Atlanta, Ga., January 10.—[Special.]—A reduction in wages equal to 50 per cent of all increases granted since 1917, effective Monday, January 10, has been announced by the Atlanta, Birmingham & Atlantic Railroad Co.

Railroad labor circles look upon this proposed reduction as the entering wedge for a general cut throughout the railroad world. Representatives of employees in joint session with officials recently rejected the proposition. Another meeting will be held to consider a future course of action.

The decrease was ordered because it was essential, according to officials of the line, who declare that the losses in operation have been \$100,000 monthly. In 1917 the payroll was approximately \$141,000 monthly. This was boosted to \$245,000, then to \$355,000, and the last raise decreed by the Government placed the figures at \$380,000. The cut would reduce the payroll to about \$200,000.

Those closely in touch with the situation believe that the employees will avail themselves of recourse to the Federal authorities. Employers predict no trouble.

## Railroad Financing.

Richmond Terminal Railway Co. has applied to the Interstate Commerce Commission for authority to issue two 6 per cent three-year notes of \$12,500 each, one to the Richmond, Fredericksburg & Potomac Railway Co. and the other to the Atlantic Coast Line, for a loan of \$25,000 made by the two roads. From the proceeds it is proposed to pay the Richmond, Fredericksburg & Potomac Railroad \$19,140 due for an exchange of real estate, and \$5860 to the United States Railroad Administration on account of additions and betterments made during the period of Federal control.

Carolina, Clinchfield & Ohio Railway Co. has been authorized by the Interstate Commerce Commission to issue \$5,000,000 of 6 per cent 15-year cumulative income debentures for the purpose of retiring \$4,124,000 of obligations that matured January 1.

Southern Railway Co. has been authorized by the Interstate Commerce Commission to issue \$5,900,000 of its development and general mortgage bonds to be pledged as partial security for a Government loan.

Chesapeake & Ohio Railway has been authorized to issue \$2,699,000 of first lien and improvement mortgage bonds and to pledge \$3,759,000 of bonds as part security for a Government loan.

Baltimore & Ohio Railroad Co. has been authorized to issue conditional sale purchase notes to guarantee an obligation of \$3,250,000 to the National Railway Service Corporation, with which it has made a contract for new equipment. The company was further authorized to issue \$7,586,000 of refunding and general mortgage bonds to be held in its treasury.

Carrollton & Worthville Railroad of Kentucky has applied to the Interstate Commerce Commission for a loan of \$8000 for five years to finance improvements.

## Parkersburg to Charleston.

The North & South Railroad Co. has been incorporated at Parkersburg, W. Va., to build a short line between that city and Charleston, the State capital. Capital stock is \$50,000, and the officers, who are also the incorporators, are: President, Judge Reese Blizzard; vice-president, Dr. W. J. Davidson; vice-president and right-of-way agent, Kenner B. Stephenson; treasurer, T. G. Reitz; secretary, C. M. Hanna; all of Parkersburg.

According to announcements concerning the plan, there can be accomplished a great saving of time and distance for travelers between the northern part of West Virginia and Charleston, as the route proposed from Parkersburg would be about only 70 miles and would save about 100 miles of travel. The line as at present contemplated is to run from Parkersburg via Rockport, Ripley and Kenna to the capital. The time for beginning construction is not decided, and may not be for a year.

# LUMBER AND BUILDING MATERIALS

## Lumber Men to Co-operate With Other Building Industries for Early Resumption of Activity.

Chicago, Ill., January 10—[Special.]—The National Lumber Manufacturers' Association of this city has announced a conference to be held in the Gold Room of the Congress Hotel on January 21 and 22, to which representatives of the lumber industry and of other industries supplying essential construction materials have been invited. The purpose of the conference is to promote an early restoration of building activity and the prompt reduction of unemployment throughout the United States. A statement issued by the association is as follows: "The lumber industry, in the determined effort to do its full part toward the revival of building activity, believing in the common interest therein of all other building industries, cordially invites their co-operation; and it confidently hopes for the guidance, interest and support of all those who, with it, are interested in reaching a practicable solution of the nation's housing problem and in promoting the happiness, peace and comfort and the profitable employment of the American people."

A resolution passed at a mass meeting of lumbermen held in this city on January 5 and 6 is as follows:

At a mass-meeting of lumbermen, held in Chicago, January 5th and 6th, 1921, at which was represented the entire lumber industry from the Atlantic to the Pacific, and from the Great Lakes to the Gulf, after full consideration the following resolution was passed:

Whereas, There is a pressing national need for the revival of building activity, so that the people may have adequate and suitable homes, and that necessary industries may be able to secure the facilities essential to their efficient operation; and

Whereas, The prompt restoration of normal processes in the production and distribution of commodities and the early resumption of building require that a basis of building costs be reached in the reasonable permanence of which the public will have confidence; and

Whereas, The resumption of normal building activity may not be expected until the prices of commodities entering into the cost of construction shall be publicly understood and the reasons therefor; and

Whereas, An important factor, which concerns every community in our country, is that of labor; and

Whereas, We believe in the dignity of labor, as no country on earth has ever had prosperity, long continued, where labor has been discriminated against, or where it has not received a just reward; and we believe that, although it must have its proper reward, it must, if building activity is to be successfully revived, accept, in most localities, less than its present wage scales;

Therefore, be it Resolved, At this mass-meeting representing the producers of lumber throughout the country, that "in our judgment, to the end that construction activity may be resumed, and the needs of the people be supplied on a fair, just and stable basis, all construction industries, and labor in the building trades, should recognize the deflation which has taken place, and should place their respective activities upon a basis consistent with the public interest in the revival of building activity."

We, therefore, call upon all other industries, and labor, which furnish the essential elements entering into the costs of construction, to join with us in contributing their just part toward the resuscitation of the activity of this useful industry.

To this end, the producers of lumber pledge themselves, and invite the co-operation of all other essential industries, referred to in this resolution, and of all those who are interested in reaching a practicable solution of the nation's housing problem and in promoting the happiness, peace and comfort, and the profitable employment of the American people.

We therefore request the National Lumber Manufacturers' Association to call, through its executive officers, a conference of these essential industries, for the 21st and 22nd of January, 1921, at Chicago, Ill., to the end that these and the related problems of finance, transportation, taxation and the restoration of public confidence, may be properly considered, and ways and means devised for attaining the end sought, namely, the revival of the building industries of the United States.

## Review of Lumber Production and Shipments.

Chicago, Ill., January 10—[Special.]—For the greater part of 1920 the sawmills in the several larger producing regions cut slightly more lumber than was shipped. Shipments exceeded the cut during January, February and March, which formed part of a period of unprecedented demand in the lumber industry due to a combination of depleted stocks, a stringent car shortage and great activity in building and manufacturing. Demand lightened in April, and from then on until the last week of the year the output of the mills each week was greater than the quantity of lumber shipped. In June the excess reached a peak of 40 per cent; the weekly average, however, was not great, and the year closed with the mills having stocks of practically normal proportions.

Unfilled orders as an item of importance to the manufacturer of lumber began to increase in volume at the opening of 1920,

only to decline in the two following months. In April unfilled orders were again added to; in May and June shipments were such as to slightly reduce unfilled orders. In July and August the order files were enlarged, but from then on, with the exception of one or two weeks, shipments kept pace with or exceeded new business booked up until the close of the year.

Production of lumber during the year exceeded shipments by more than 10 per cent.

## Will Discuss Every Phase of Housing Problem.

Washington, January 10—[Special.]—All phases of the national housing problem will be gone into at the conference here January 27 and 28 of the National Council of the Chamber of Commerce of the United States, as disclosed in a tentative program made available today.

Business men prominent in the various industries, members of Congress and Government executives, housing specialists and others will present to the conference their views as to how housing conditions may be ameliorated. Representatives of the hundred of more chambers of commerce through the country that have organized housing corporations will give the conference the benefit of their experiences.

The list of subjects on the program for discussion follows:

The Housing Problem and its Relation to the Welfare of the American People.

The Housing Shortage and the Program of the Construction Industries.

The Employers' Interest in Securing Enough Good Housing.

Legislation that will divert Capital to House Building.

New England is Meeting its Housing Crisis.

How can the Necessary House Construction Best be Financed?

Labor's Part in a House Building Program.

Effect of the Housing Shortage upon Standards of Living and Ultimately upon Industry.

Standardization of Manufactured Products Entering into House Construction.

Standardization of Building Laws.

Labor Situation in the Construction Industries.

Available Supplies of Building Materials and Forecast of the Price Movement.

Organization and Management of a One Industry Housing Company.

Organization and Management of a Civic Housing Company promoted and financed by a group of industries and other large employers of the community.

The Economic Value of a Good Layout for an Industrial Development.

Effect of Exemption from Taxation and other Subsidies.

The British and Canadian Government's Methods of Financing Housing.

Effects of the New York Building Investigation upon Costs of Construction.

Co-operative or Mutual Financing of Housing Developments.

Good Housing an Essential.

American Housing and the Immigrant.

## Will Establish New Hardwood Lumber Plant.

Crockett, Tex., January 8—[Special.]—The new hardwood plant of the Crockett Hardwood & Pine Lumber Co. will occupy a former cotton warehouse located on the I. & G. N. Railway here. It is 50x280 feet, and there will be installed a 50-horse-power engine and a 75-horse-power boiler, in addition to planer and saw-mill equipment.

The company has a complete pine and planing mill 10 miles west of Crockett. The officers are: D. A. Nunn, president; J. S. Conk, vice-president; H. A. Fisher, secretary; H. F. Moore, treasurer; W. R. Turner, manager.

## Manufacturing Wood Handles for Brushes and Umbrellas.

The Monarch Wood Turning Corporation of Baltimore is operating a modern automatic wood-turning plant for the manufacture of varnish and paint-brush handles and umbrella handles at 20 to 30 Garrison lane. The factory consists of a main brick mill with three wings, and machinery costing about \$25,000 has been installed, consisting of automatic lathes, shapers and the necessary equipment to handle a large volume of business of this kind. The officers of the company are Charles L. Cunningham, president; John A. Fox, vice-president; L. Joseph Byrne, secretary, and Walter G. Cunningham, manager.

### Southern Pine Lumber Mills Report for Week.

New Orleans, La., January 4—[Special.]—Reports from 125 mills of the Southern Pine Association for activities during the week ending December 31 are as follows:

	Cars.	Feet.
Orders on hand beginning of week.....	9,727	211,241,259
Orders received during the week.....	1,523	33,074,991
Total.....	11,250	244,316,250
Shipments during week.....	1,712	37,179,594
Orders on hand end of week.....	9,538	207,136,746
Normal production these mills.....		86,159,811

Shipments were 65.08 per cent above production for the week. Orders were 46.85 per cent below production for the week and 11.04 per cent below shipments for the week.

The production was 73.86 per cent below normal, and shipments were 56.84 per cent below normal production. Orders were 61.61 per cent below normal production, while the "orders on hand" decreased 1.94 per cent during the week.

### Big Lumber Deal Consummated.

Jackson, Miss., January 10—[Special.]—A lumber and manufacturing deal, involving between \$4,000,000 and \$5,000,000, was closed here yesterday, the Natabany Lumber Co. acquiring all the interests of the Gammill Lumber Co. in this section of the State.

The main plant of the Gammill Lumber Co. at Pelahatchie, 25 miles east of Jackson, was destroyed by fire several weeks ago. The transaction includes the plant site and lands with an enormous stumpage.

The Natabany Lumber Co. owns four other plants in this State, three on the main line of the Illinois Central and one on the Ship Island road. The head of the concern is E. P. Deikman, one of the wealthiest lumber manufacturers in the United States.

No plans have yet been made for operation of the Gammill interests, but it is regarded as strongly probable that the company will establish its headquarters in Jackson, and it is also possible that a large lumber manufacturing plant will be eventually established here, as the timber holdings of the company are within a few miles of this city.

### Alcohol Obtained From Wood Waste.

Madison, Wis., January 10—[Special.]—Softwood lumber mill waste can be made to yield 20 gallons or more of 95 per cent alcohol per ton, and hardwood waste about half as much. Some actual yields obtained by the United States Forest Products Laboratory from the waste of various woods are given in the following table:

SOFTWOOD WASTE.			
Kind of wood.	Percentage of wood convertible into sugars.	Percentage of sugars fermentable.	Gallons of 95% alcohol from 1 ton of wood.
White spruce.....	23	71	25.8
Long-leaf pine.....	21	72	25.1
Red spruce.....	22	72	24.0
Norway pine.....	25	66	23.4
Idaho white pine.....	21	74	23.4
Western hemlock.....	21	77	23.0
Montana white pine.....	29	75	22.0
Lodgepole pine.....	21	67	21.8
Sugar pine.....	20	66	21.5
Douglas fir.....	21	67	20.7

HARDWOOD WASTE.			
Kind of wood.	Percentage of wood convertible into sugars.	Percentage of sugars fermentable.	Gallons of 95% alcohol from 1 ton of wood.
Silver maple.....	20	47	14.1
Birch.....	20	46	12.9
White oak.....	17	50	12.4
Red gum.....	20	38	11.0
Sycamore.....	18	38	9.7
Hard maple.....	18	34	9.1
Red oak.....	19	30	8.1
Cottonwood.....	18	30	7.2
Slippery elm.....	16	26	6.0

The manufacture of industrial alcohol is at present about the only feasible method of utilizing lumber-mill refuse on a large scale. An alcohol plant with a daily supply of 180 tons of wood can produce 3600 gallons of alcohol at a cost, under present conditions, of approximately 25 cents a gallon. The success of plants now in operation justifies a serious consideration of this process

by mills having a large quantity of waste. A descriptive pamphlet, including estimates of plant requirements and recent cost data on the manufacture of alcohol from wood, is obtainable from the Forest Products Laboratory on request.

### Southern Pine and Red Gum for Book Paper.

The possibility of using Southern pine and red gum for the production of high-grade book and magazine paper has been demonstrated in recent trials at the United States Forest Products Laboratory, Madison, Wis. Book paper requires for its manufacture two kinds of woods—a long-fibered wood, such as spruce, to impart strength, and some short-fibered hardwood to give the formation, finish, capacity and other printing qualities. The Southern pines are long-fibered woods, excellently suited for the manufacture of wrapping paper and fiber board, but their pitch content and the difficulty of bleaching them have heretofore been obstacles in the way of their use for white paper. These obstacles, it has been shown, can be overcome in a large measure by proper cooking conditions and improved bleaching methods. Red gum is typical of many Southern hardwoods that might be used with the pines in the manufacture of the better grades of printing paper.

The laboratory experiments indicate that one cord each of loblolly pine and red gum are capable of yielding one ton of paper at a cost which should allow a good profit under prevailing conditions.

The utilization of the Southern pines for book paper would spread the burden of the pulp wood supply over considerable territory which is favored with a large annual growth of timber. In fact, although the bulk of the standing timber of the United States is in the Far West, the bulk of the annual growth is now in the South. Pines and hardwoods are distributed throughout the Southern States in proportions well suited for the manufacture of book paper, and the forests are near the centers of paper consumption, as well as the supplies of coal, chemicals and other necessary raw materials.

### Strength of Southern Pine and Douglas Fir Compared.

There is little difference between the strength of the Southern pines and that of Douglas fir from the Pacific Northwest, tests made at the United States Forest Products Laboratory show. True long-leaf yellow pine averages heavier, stronger and tougher than Douglas fir. True short-leaf pine averages heavier and tougher than the fir, but is about equal to it in strength as a beam or post. Loblolly pine, though averaging heavier than the fir, is somewhat weaker. The difference in strength between any of these pines and Douglas fir, however, is not so great but that low-density pieces of the one species are weaker than the average for the other species.

As far as strength properties are concerned, the choice between any two lots of Southern pine and Douglas fir will depend upon the grade and density of the timber composing each lot. The Rocky Mountain type of Douglas fir averages considerably weaker than the Pacific coast type.

### National Forest Properties Increase.

Washington, January 10—[Special.]—The net area of the national forests, excluding alienated lands, at the close of the fiscal year for 1920 was 156,032,053 acres, as against 153,933,700 acres one year before. The corresponding gross areas, which include all land within the national forest boundaries, were 180,299,776 acres and 174,261,393 acres.

### Home Builders' Association Organized.

Charaw, S. C., January 10—[Special.]—The New Home Builders' Association has been organized here with J. W. Mallow as president, and plans to build a number of dwellings for subscribers and stockholders. The buildings will be both of brick and frame with shingle and metal roofs and hardwood and pine floors. T. J. Duffy and J. F. McBride will act as architects.

A commercial club has been organized by the citizens and business interests of Paintsville and Johnson counties, Kentucky. It will promote good-roads work in Johnson county and the building of the proposed Mayo Trail through the Big Sandy Valley.

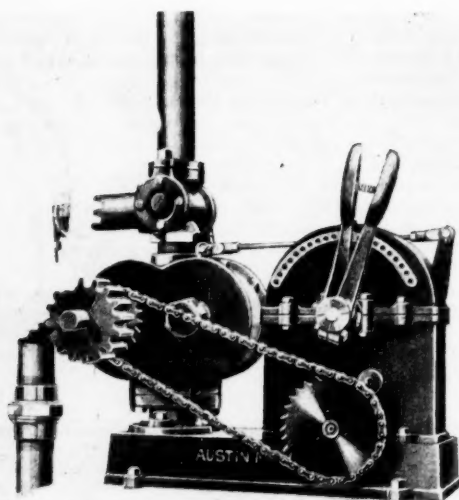


# MECHANICAL

## New Automatic Meter Pump.

Much interest is being manifested in the results of a series of tests recently made of a new automatic meter pump which was designed by an engineer connected with the Austin Machinery Corporation of Chicago.

This novel device measures the water discharged into concrete mixers and paving machines, insuring, it is claimed, a uniformly accurate quantity for each batch. It is fast, and simplicity is its main characteristic. Setting a pin for the exact quantity of water required takes but a moment, and no more attention is required until the job is done, except, possibly, to move the pin a hole or two to offset any variations that may occur in the moisture of the ingredients.



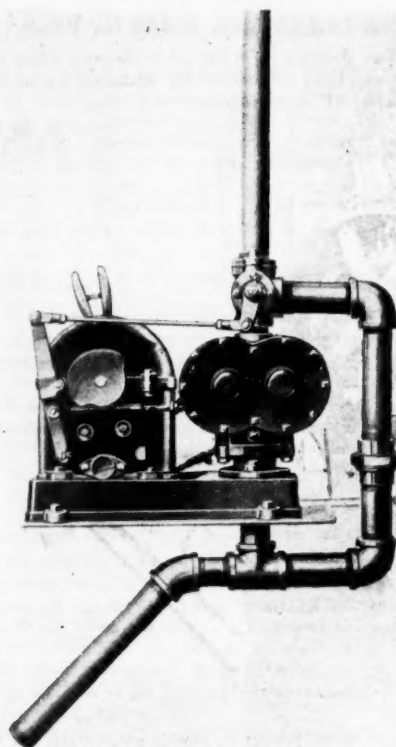
FRONT VIEW OF METER PUMP.

The device consists of a pump, a valve, a timer and a few pipes and fittings. The pump is driven from the mixer shaft. It works continuously. It can lift water approximately 12 feet from dead water to pump, or take water from a hydrant.

The operator opens the valve by throwing the starting lever over to the timing pin. Then he forgets it until the next batch is ready for the water. The valve closes itself automatically at the precise moment the predetermined quantity of water has been discharged. The machine has a range of about 250 per cent from minimum to maximum discharge. The total weight does not exceed 200 pounds.

A report states that the tests to which the device was subjected were not confined to a factory routine, but extended over some time in actual practice.

Inspector H. C. Daniels, in charge of the concrete work on a new nine-story Marshall-Wells warehouse in Chicago, says: "The concrete has turned out to be so dense as to be practically waterproof, consequently the concrete should be of the greatest strength. \* \* \* From the experience I can say without hesitation that your water meter is a decided success in all respects."



REAR VIEW OF METER PUMP, WITH PIPE CONNECTIONS.

## \$1,500,000 Capital Increase Authorized.

Reports from Macon, Ga., state that the Bibb Manufacturing Co., William D. Anderson, president, Columbus, Ga., has authorized an increase of capitalization from \$6,000,000 to \$7,500,000. The additional funds are to provide for expansions at its cotton mills in Macon, Columbus and Porterdale. This indicates a revival of trade in the textile industry, and the prospects for improved business conditions in the near future are considered very promising.

## The Cotton Movement.

In his report of January 4, 1921, Col. Henry G. Hester, secretary of the New Orleans Cotton Exchange, shows that the amount of cotton brought into sight during five months of the season ending close of December was 5,901,366 bales, a decrease from the same period last year of 1,558,281 bales. The exports were 2,402,226 bales, a decrease of 410,788 bales. The takings by Northern spinners were 610,267 bales, a decrease of 854,338 bales; by Southern spinners, 1,534,955 bales, a decrease of 831,716 bales.

## Textile Mill Notes.

Improvements costing \$10,000 are under consideration by the Groves Mills, L. F. Groves, president, Gastonia, N. C. The plant manufactures cotton yarn.

The capital stock of the South Texas Cotton Mills, Brenham, Tex., has been increased from \$50,000 to \$250,000. Duck, sheetings and Osnaburgs are manufactured.

The Oriental Textile Mills of Houston, Tex., manufacturer of press cloths, has increased its capitalization from \$600,000 to \$1,000,000.

An increase in capital from \$150,000 to \$227,500 is under consideration by the Broad River Mills of Blacksburg, S. C., manufacturer of sheetings. W. C. Hamrick of Gaffney, S. C., is president.

# Construction Department

## EXPLANATORY.

The MANUFACTURERS RECORD seeks to verify and obtain additional information regarding all enterprises reported in its Construction Department, by direct daily correspondence. Further facts of news value are published later than telegraph, mail and representatives' reports. We appreciate having our attention called to errors that may occur.

## DAILY BULLETIN.

The Daily Bulletin of the MANUFACTURERS RECORD is published every business day in order to give the earliest possible news about new industrial, commercial, building, railroad and financial enterprises organized in the South and Southwest. It is invaluable to manufacturers, contractors, engineers and all others who want to get in touch at the earliest moment with new undertakings, or the enlargement of established enterprises. The subscription price is \$20.00 per year.

## Airplane Plants, Stations, Etc.

Mo., Aberdeen-Hangar.—War Dept., Construction Service Quartermaster, Washington, D. C., let contract to Belmont Iron Works, 22d and Washington Ave., Philadelphia, Pa., to construct ship hangar, boiler and generator house, etc. (Bids lately noted.)

## Bridges, Culverts and Viaducts.

Ark., Fort Smith.—Sebastian County Commissioners are progressing with construction of \$50,000 bridge over Arkansas River to connect Arkansas and Oklahoma; Missouri Valley Bridge & Iron Co., Contr., Leavenworth, Kans.

Fla., Crestview.—A. E. Loder, Dist Engr. Bureau Public Roads, U. S. Dept. of Agriculture, 917 Bell Bldg., Montgomery, Ala., will construct 1900 lin. ft. timber trestle and bridge and 515 lin. ft. earth fill surfaced with sand-clay; bids until Feb. 3; changed date from Dec. 16. (See Machinery Wanted—Bridge Construction.)

Fla., Fernandina.—Nassau County Comms. Fifth District will build bridge across Thomas Creek, on Dixie highway; contract to R. H. Jones for furnishing piling and lumber.

Fla., Jacksonville.—City Comsn. will repair bridge over Hogan's Creek; \$2500.

Fla., Jacksonville.—Duval County Comms., Frank Brown, Clk. will build bridge over Moore's branch of New River-Maxville road; bids until Jan. 20. (See Machinery Wanted—Bridge Construction.)

Fla., Pensacola.—Escambia County Comms. contemplates building bridge at Ferry Pass; cost about \$1,000,000.

Fla., Titusville.—Brevard County Comms., Cocoa Beach Special Road and Bridge Dist., will build 8000-ft. trestle bridge, 16 ft. wide; \$119,000; contract for pile driving to J. A. Kidd, Jacksonville, Fla.; dredge work to P. A. Root, Daytona, Fla.; concrete-pile protection to C. A. Lucas, and lumber construction to J. E. Easterly; both Cocoa, Fla.; C. M. Rogers, Engr., Daytona, Fla. (Lately noted inviting bids.)

Miss., Canton.—State Highway Dept., Jackson, Miss., will build steel bridge over Doak's Creek; bids opened; D. C. Dietzer, State Highway Engr., Jackson, Miss.

Miss., Meridian.—City will build concrete bridges; Hancock & McArthur, Contrs.

N. C., Beaufort.—State Highway Comsn., Columbia, S. C., will complete bridge over Whale Creek in Beaufort County; will invite bids between Jan. 15 and Jan. 30.

N. C., Hertford.—Perquimans County Commissioners will build bridges; Carolina Engineering Co., Engr., 412 Southern Bldg., Wilmington, N. C.; bids until Feb. 17. (See Machinery Wanted—Bridge Construction.)

S. C., Bennettsville.—Marlboro County Com-

missioners, J. C. Covington, Chrmn., will build permanent bridges; reinforced concrete; three 30-ft., one 40 ft. and two 25-ft. spans; \$100,000 available; construction by County; B. M. English, County Engr.

S. C., Columbia.—State Highway Comsn. will construct 4 bridges at cost of \$1,645,000, including Santee bridge at Murray's Ferry, \$50,000; Poe Dee River bridge, \$350,000; Sand Bar Ferry bridge across Savannah River, \$200,000, and Wateree bridge at Garner's Ferry, \$150,000, and additional \$25,000 for approaches; will invite bids. (Lately noted.)

Tex., Corpus Christi.—Neuces County Commissioners will construct \$110,000 causeway to connect Corpus Christi with San Patricio county shores of Neuces Bay; length 8156 ft.; 2000 ft. concrete on concrete piers; 6156 ft. timber; will invite bids; O. N. Powell, County Engr. (Previously noted.)

Va., Norfolk.—City, Walter H. Taylor, 3rd, Director Public Works will rebuild pile and timber bridge across Tanner's Creek; bids until Jan. 20. (See Machinery Wanted—Bridge Construction.)

W. Va., Welch.—McDowell County Comms. will construct approaches to Nigger Branch bridge across Tug River; \$8000; Albert Bros., Contrs., Shawsville, W. Va.

## Canning and Packing Plants.

Ga., Atlanta.—White Provision Co., W. H. White, Jr., Mgr., increased capital from \$150,000 to \$300,000.

N. C., Washington.—Chamber of Commerce, Geo. B. West, Secy., contemplates establishing packing plant with annual capacity 2500 hogs. (See Machinery Wanted—Packing Plant.)

## Clayworking Plants.

Ala., Decatur.—Tiles.—Company organized with J. C. Jacobs, Prest., Scottsboro, Ala.; John A. Thompson, V.-P., Decatur; capital \$50,000; acquired clay land and building sites; will erect tile factory.

## Coal Mines and Coke Ovens.

Ala., Birmingham.—Alabama Fuel & Iron Co., Chas. De Bardeleben, V.-P. and Gen. Mgr., will develop coal lands estimated to contain 30,000,000 tons coal; will build 7-mi. spur track.

Ala., Empire.—Empire Coal Co., Birmingham, Ala., reported to expend \$971,940 in coal-mine development.

Ark., Little Rock.—Stamps Fuel Co. increased capital from \$15,000 to \$60,000.

Okla., Broken Arrow.—A. F. Nicholson, Denver, Colo., has leased 400 acres coal land; will develop.

Okla., Henryetta.—Harry Lantz will develop 520 acres coal land; install mch., part of which is purchased.

Va., Wheeler.—Chadwell Gap Coal Co., capital \$50,000, inceptd. with R. N. Price, Prest., Harrogate, Tenn.; W. R. Pool, Secy., Middleboro, Ky.; J. G. Rose, Ewing, Va.

W. Va., Beckley.—Minter Fuel Co., capital \$50,000, inceptd. by Clay P. McDonald, T. J. McGinnis, G. C. Hedrick.

W. Va., Bluefield.—Elkhorn-Hazard Coal Co., Lester G. Toney, Prest., increased capital from \$75,000 to \$150,000.

W. Va., Charleston.—Lory Coal & Coke Co., W. A. Markel, Prest., increased capital from \$50,000 to \$100,000.

W. Va., Charleston.—Elmo Mining Co., Rich. M. Lambert, Prest., increased capital from \$50,000 to \$300,000.

W. Va., Fairmont.—R. & P. Coal Co., John F. Phillips, Prest., increased capital from \$500,000 to \$750,000.

W. Va., Hughey.—Chilton Eagle Coal Co., E. H. Butts, Prest., Logan, W. Va., will develop 1600 acres of coal land; daily capacity 8 to 15 cars. (Lately noted inceptd., capital \$300,000.)

W. Va., Huntington.—Pigeon Creek Coal Co., H. H. Morris, Prest., increased capital from \$300,000 to \$500,000.

W. Va., Huntington.—Paragon Colliery Co., W. E. Deegans, Prest., increased capital from \$100,000 to \$500,000.

W. Va., Huntington.—Cub Fork Coal Co., W. E. Deegans, Prest., increased capital from \$25,000 to \$150,000.

W. Va., Huntington.—New Pocahontas Coal Co., W. E. Deegans, Prest., increased capital from \$100,000 to \$500,000.

W. Va., Lowesville.—Fort Grand Coal Co., W. D. Reed, Secy.-Treas., 17 American Bldg., Fairmont, W. Va.; develop 390 acres; daily output 500 tons; install mining mch.; S. A. Shittlesworth, Const. Engr. (See Machinery Wanted—Hoist.)

W. Va., Morgantown.—Tropf Coal Co., Fred. Tropf, Prest., increased capital from \$200,000 to \$300,000.

W. Va., Northfork.—Toney-Thomas Co., capital \$300,000, inceptd. by Lester G. and Gordon K. Toney, both Northfork; Annie C. Thomas, Bramwell, W. Va.

W. Va., Williamson.—Knox Creek Coal Co., S. H. Goodlow, Jr., Prest., increased capital from \$25,000 to \$200,000; will develop 1600 to 1800 acres; probably put in two operations; plans not completed.

## Concrete and Cement Plants.

Ala., Birmingham.—Cement Roofing Tile.—American Cement Tile Mfg. Co., T. W. Barnes, Southern Manager, 509 Brown-Marx Bldg.; purchased site of 3 acres with 2 brick buildings, remodeled for mfr. of cement roofing tile; annual capacity 1,000,000 sq. ft.; will erect 60x200 ft. heavy mill-construction building with hollow-tile walls and red interlocking cement-tile roof; construction by owners; build railroad siding and later in year second one. Lately noted to move temporary buildings from Fairfield to new site. (Supersedes recent item.)

Ky., Ashland.—Cement Coating.—C. R. Wilson, Chicago, Ill., purchased site; contemplates establishing cement-coating nail plant.

**Cotton Compresses and Gins.**

Ga., Rhine.—S. J. Brown will probably rebuild burned cotton gin.

Tex., Arlington.—J. P. Rossmund will rebuild cotton gin burned at loss of \$15,000.

Tex., Avoca.—Farmers' Gin Co., capital \$14,500, inceptd. by Nels Jansen, Carl Eckdahl, J. H. Huffaker.

Tex., Brenham.—Brenham Compress Oil & Mfg. Co. increased capital from \$15,000 to \$365,000.

Tex., Kaufman.—Grover Nelson will probably rebuild cotton gin burned at loss of \$15,000.

**Cottonseed-Oil Mills.**

N. C., Battleboro.—Battleboro Oil Co., M. C. Braswell, let contract for construction of 70x250-ft. building; install mch.; all purchased. (Lately noted to rebuild burned plant.)

**Drainage Systems.**

Miss., Cleveland.—Clear Creek Drainage Dist., Bolivar County Commrs., will construct drainage system to drain 23,500 acres, costing \$200,000; bids until March 1; W. W. Boone, Civil Engr. (See Machinery Wanted—Drainage System.)

Miss., Cleveland.—Central Drainage Dist., Bolivar County Commrs., will construct drainage system to drain 25,000 acres, costing \$350,000; bids until March 1; W. W. Boone, Civil Engr. (See Machinery Wanted—Drainage System.)

Mo., Doniphan.—Little Black Drainage Dist., J. P. Campbell, Secy., organized to construct drainage system; drain 28,000 acres; bids until Jan. 18. (See Machinery Wanted—Drainage.)

Mo., Skidmore.—Skidmore-Mailland Drainage Dist., G. L. Larkin, Secy., to drain 2600 acres land; W. B. Hazen, Engr., 53 Commercial Bldg., St. Joseph, Mo.

Okla., El Reno.—Canadian County Commrs. organize Drainage Dist. to straighten river from west line to east line of county; estimated cost \$1,000,000; vote on bonds; reported.

**Electric Plants.**

Ark., Arkadelphia.—Arkansas Light & Power Co., H. C. Couch, Prest., will improve light and water systems.

Md., Baltimore.—City, Mayor Wm. F. Broening, Prest. Board of Awards, will alter and construct additions to power plant at City Jail; bids until Jan. 19. (See Machinery Wanted—Power Plant.)

N. C., Benson.—City issued \$30,000 bonds for electric-light system. Address The Mayor.

S. C., Greer.—Board Public Works, J. B. Mendenhall, Chrmn., will build 14 mi. electric transmission line from Greer to Fairforest; line to be No. 2 aluminum or No. 4 copper, wood poles, steel crossarms, pin-type insulators of 44,000 volts; bids until Jan. 18; bids also received for substation for 3-unit 333 K. V. A. transformer, 44,000 to 2200 volts with steel bents and all necessary equipment except meters; W. N. Willis, Const. Engr., Cleveland Bldg., Spartanburg, S. C. (See Machinery Wanted—Transmission Line.)

Tenn., Columbia.—Armour Fertilizer Co. has let contract to Southern Cities Power Co. to construct high tension light and power system, 2300-volts capacity.

Tenn., Wales.—International Agricultural Corp. let contract to Frakes Bros., Columbia, Tenn., to electrify plant; install 12 electric motors, construct wires for electric trams, erect high-tension wires, transformers, etc.

Tex., Pecos.—Pecos Power & Ice Co. (lately

noted inceptd., capital \$50,000) organized; M. E. Neiderkorn in charge; reconstruct old plant, install mch.; construct 20 mi. transmission system, connecting Pecos and Barstow; develop 600 H. P.; J. W. Crowder, Engr., El Paso, Tex.

Tex., Roby.—Roby Water & Light Co. organized by L. C. Eastland, Mgr.-Engr., Box 166; has 40x25-ft. frame power-house, \$2000; construction by company; will construct 4½-mi. transportation system, costing \$6500; develop 50 H. P.; will install 2300-volt A. C., 3-phase, 60-cycle switchboard complete. Lately noted inceptd. with \$20,000 capital. (See Machinery Wanted—Switchboard.)

**Fertilizer Factories.**

Md., Crisfield.—Herbert Bryant's Sons, Arthur Bryant, Prest., Alexandria, Va., will erect 1 and 2-story 165x22-ft. plant; also let contract to L. A. Hinan, Crisfield, for construction 1-story 80x57-ft. dusthouse; W. Leon Clark, Archt., 917 Prince St., Alexandria, Va.

Va., Richmond.—Alliance & Industrial Union Mfg. Corp., capital \$50,000, inceptd. with W. E. Reese, Prest.; I. C. Dodson, Secy.; mfrs. fertilizer and by-products.

**Flour, Feed and Meal Mills.**

Md., Big Poole.—Isaac N. Spielman will probably rebuild flour mill burned at loss of \$35,000.

Mo., Cameron.—Cameron Co-operative Elevator Co., capital \$30,000, inceptd. with J. C. McComb, Mgr.

Tenn., Clarksville.—Dunlop Milling Co. will increase capital from \$200,000 to \$500,000.

Tex., San Antonio.—C. H. Guenther & Son increased capital from \$120,000 to \$180,000.

**Foundry and Machine Plants.**

Ala., Westfield (P. O. Birmingham)—Steel Castings.—Tennessee Coal, Iron & R. R. Co., W. T. Palmer in charge, will construct steel foundry costing \$317,000; mfrs. steel castings for various industries of the steel corporation in Birmingham district.

Ky., Paducah.—Harrows, etc.—Milburn Implement Mfg. Co., J. H. Payne, Prest., care of Bank of Arlington, Lexington, Ky., will erect plant to mfr. farm implements, specializing in harrows; also remove plant from Milburn, Ky., to Paducah.

Md., Baltimore.—Elevators, etc.—Imperial Elevator & Engineering Co., 463 S. Caroline St., capital \$25,000, inceptd. by L. Clifton Perkins, F. Stier Nichols, Wm. D. Roycroft; mfrs. elevators, dumbwaiters, conveyors, etc.

Md., Baltimore.—Machine Shop.—Wm. E. Hooper Sons Co., 3502 Parkdale Ave. let contract to Whiting Turner Construction Co., 427 E. Lombard St. to construct 28x34 ft. addition to machine shop; Herman E. Doelman, 609 N. Charles St., Archt.

Mo., St. Louis.—Locomotives.—American Locomotive Co., 39 Church St., New York, reported to expend \$25,000,000 on establishing plant.

N. C., Winston-Salem.—Furnaces.—Southern Iron & Steel Corp. organized with Henry Johnson, Prest.; J. H. Frazier, V.P.; R. G. Parlier, Secy.-Treas.; mfrs. furnaces for tobacco barns.

Okla., Bristow.—Tools.—Bristow Tool Co., capital \$100,000, inceptd. by J. P. McNutt, A. L. Davis, N. D. Conley.

Tex., San Antonio.—Machinery.—Kruger Machinery Co. increased capital from \$200,000 to \$250,000.

**Gas and Oil Enterprises.**

Ky., Lexington.—Refinery.—Martin Construction & Engineering Co. (lately noted inceptd.,

capital \$100,000) organized with R. D. Martin, Prest.-Gen. Mgr., will erect 150,000-bbl. capacity refining plant of fireproof construction; install pumps, air compressors and boilers. (See Machinery Wanted—Pumps, etc.)

La., Shreveport.—Union Power Co., capital \$3,000,000, inceptd. with F. T. Whited, Prest.; Frank J. Silbee, V.P.; J. D. Willkinson, Secy.; W. W. Moore, Treas.; will develop natural gas in Louisiana and Arkansas; merging of Frost-Johnson Lumber Co., Shreveport and the J. S. Cullinan interest of Houston, Texas.

Miss., Water Valley.—O. T. Tarrer & Son will erect oil tank.

N. C., Wilmington.—Standard Oil Co., H. H. Springs, Local Mgr., will improve plant; cost \$10,000.

Okla., Devol.—Storage Tanks.—Constantin Refinery Co., Tulsa, Okla., contemplates construction additional storage tanks.

Okla., Henryetta.—Refinery.—Henryetta Oil & Refining Co., C. Harrismen, Secy., plans \$50,000 improvements.

Okla., Lawton.—Pipe Line.—Lawton Refining Co., G. S. Hollman, Mgr., will construct \$150,000 pipe line from Lawton to Empire City oil field.

Okla., Okmulgee County.—Pipe Line.—Indianapolis Refining Co. and Export Oil Corp., E. E. Schock, Prest., Tulsa, Okla., will construct additional pipe line; has let contract for erection additional storage tanks.

Okla., Tulsa.—Tulsa Interstate Petroleum Co., capital \$200,000, inceptd. by R. J. Dickson, Tulsa; Fred. H. Inman, B. G. Young; both Oilton, Okla.

Tex., Austin.—Asiatic Petroleum Co. inceptd. by C. A. Wilcox, C. C. Taylor, O. L. Brafine.

Tex., Beaumont.—Wilson-Breach Co. increased capital from \$50,000 to \$400,000.

Tex., Beaumont.—Carthage Oil Co., capital \$1,000,000, inceptd. by L. S. Smith, J. W. Cooke, J. J. Ayres.

Tex., Carthage.—Carthage Oil Co., main office Beaumont, Tex., capital \$1,500,000, organized with Geo. M. Craig, Prest., Long Beach, Cal.; Joe A. Myers in charge, Beaumont, Tex., has leased 22,000 acres; will develop. (Lately noted inceptd., capital \$1,000,000.)

Tex., Dallas.—Refinery.—Gulf Refining Co., 315 Sherman St. let contract for several 1 and 2 story buildings, 40,000 sq. ft. floor space.

Tex., Dallas.—American Royalty Co. increased capital from \$100,000 to \$250,000.

Tex., Ft. Worth.—Weber-Harris Drilling Co., capital \$100,000, inceptd. by G. M. Harris, M. E. Weber, D. M. Leopold.

Tex., Fort Worth.—Traders' Oil Mill Co. increased capital from \$200,000 to \$250,000.

Tex., Fort Worth.—United Producers Pipe Line Co. increased capital \$1,250,000 to \$3,000,000.

Tex., Houston.—Old Dominion Co. inceptd. with O. L. Pardue, Prest., Houston; Justin D. Townner, V.P., Memphis, Tenn.; J. A. Chaffe, Secy.-Treas.; contemplates drilling 16 wells; present daily capacity 15,000 bbls.; consolidation of 4 companies including General Production Co., Bethlehem Co., and the original Old Dominion Co.'s.

Tex., Houston.—Refinery.—Able Refinery Co., J. L. Able, Prest., capital \$200,000, will erect refinery with initial daily capacity of 500 bbls. oil; Mr. Van Pelt, Refinery Engr.

Tex., San Antonio.—Frontier Oil Co. increased capital from \$100,000 to \$500,000.

Tex., Sour Lake.—Hunt-Lee Oil Co. increased capital from \$50,000 to \$500,000.

Tex., Wichita Falls.—Hockaday Petroleum Co., capital \$50,000, inceptd. by R. W. and M. B. Hockaday, C. H. Evans.

In writing to parties mentioned in this department, it will be of advantage to all concerned if the Manufacturers Record is mentioned.



Tex., Wichita Falls.—Manhattan Pipe Line Co. increased capital from \$300,000 to \$700,000; changed name from Manhattan Oil Producing Co.

Tex., Wichita Falls.—Manhattan Oil Refining Co. increased capital from \$40,000 to \$1,250,000; changed name from Crude Oil Marketing Co.

### Hydro-Electric Plants.

Ala., Dothan.—Houston Power Co. contemplates constructing dam for development of electric power and light current on Little Choctawhatchie River; 20 ft. high.

Tex., El Paso.—City, Charles Davis, Mayor, plans electrical development of Elephant Butte dam, including erection of giant generators, main power plant, substations and transmission lines; cost \$4,000,000.

### Ice and Cold-Storage Plants.

Ala., North Birmingham.—Rushton Corp., W. J. Rushton, purchased plant and properties of Alabama Packing Co.; will improve for mfr. of ice and cold storage.

Okla., Sulphur.—Artesian Ice & Coal Co., capital \$5000, inepd. by G. C., C. H. and G. W. Frier.

Tex., Wichita Falls.—Wichita Ice Co., capital \$200,000, inepd. by Frank Kelly, S. W. Sibley, J. T. Gant.

Va., Richmond.—Crystal Ice Co., 525 Brooke Ave., will remodel 3-story plant; R. H. Greene and W. P. Thurston, Archts., Merchants Natl. Bank Bldg.; invites bids.

### Land Developments.

Ala., Fort Payne.—W. B. Davis & Son contemplete purchasing De Kalb County Fair property; reported to develop.

Fla., Crooked Lake.—H. W. Bennett, 25 Wall St., New York has purchased 4323 acres land; will develop for resort; erect \$200,000 hotel of fireproof construction.

Ark., Dumas.—Arkansas Plantation Co., capital \$440,000, inepd. with Geo. R. Lacy, Pres., Arkansas City; T. R. Jacobs, V.-P. and Gen. Mgr.; R. L. Byrne, Secy.; Lloyd R. Byrne, Treas.; all Dumas; develop 3500 acres.

Fla., Jacksonville.—Fine Arts Pictures, Inc., Murray W. Garson, Pres., will develop 700 acres of Camp Joseph E. Johnston at Black Point for motion-picture center; name, Fine Arts City; estimated expenditure for transforming property, \$1,000,000; plans by H. J. Klutho, Archt., Jacksonville, provide for 20 complete studios, each built on unit plan and capable of accommodating 2 companies; average indoor stage space 60x130 ft.; other structures to include administration building and laboratory, both fireproof construction; entrance to city through decorated archway, flanked by columns; Mr. Klutho will supervise construction; G. A. Loomis & Co., 42 Broadway, New York, are financing project.

Fla., Miami.—Pompano-by-the-Sea Co., capital \$12,000, inepd. by A. T. Barkdall, Harry N. Pitt, J. W. Bullock.

Mo., Jefferson City.—State Comms. will develop State Capital Park, costing \$90,000.

N. C., Charlotte.—Camp Green Development Co., will develop former Camp Green site into residential suburb; John Nolan, Landscape Archt., Cambridge, Mass.

Tenn., Knoxville.—Lone Pine Orchard Corp., capital \$300,000, inepd. by J. G. Burkie, T. K. Riddick, F. D. Fuller, all Memphis, Tenn.; contemplates developing 1000 acres for apple orchard.

Tex., Denton.—City Comsn. contemplates purchase of site to develop for park and coliseum; vote Apr. 5 on \$75,000 bonds.

W. Va., Morgantown.—Hope Realty Co., capital \$100,000, inepd. by Albert Shuman, William P. McCue, O. O. Donnelly.

### Lumber Manufacturing.

Ala., Tuscaloosa.—Kaul Lumber Co. will expend \$10,000 on plant improvements, extend buildings, install mch. and equipment.

Ky., Henderson.—Wyatt Lumber Co. will probably rebuild plant burned at loss of \$40,000. (Supersedes recent item.)

La., Covington.—Geo. H. Koepf will probably rebuild lumber mill burned at loss \$45,000.

Miss., Meridian.—C. L. Gray Lumber Co., C. L. Gray, Pres., increased capital from \$275,000 to \$400,000.

N. C., Columbia.—Allison Lumber Co. increased capital from \$2500 to \$25,000.

Okla., Ponca City.—American Lumber Co. increased capital from \$50,000 to \$600,000.

Tex., Brenham.—Farmers & Merchants Lumber Co. increased capital from \$35,000 to \$70,000.

Tex., Crockett.—Crockett Hardwood & Pine Lumber Co. organized with D. A. Nunn, Pres.; J. S. Cook, V.-P.; H. A. Fisher, Secy.; H. F. Moore, Treas.; W. R. Turner, Mgr.; has plant, install 50 H. P. engine, 75 H. P. boiler, planer and sawmill. Lately noted inepd., capital \$23,300. (See Machinery Wanted—Engine; Boiler; Planer; Sawmill.)

Tex., Falls City.—Kowalik Lumber Co. increased capital from \$10,000 to \$25,000.

Tex., Dallas.—Equity Lumber Co. increased capital from \$50,000 to \$300,000.

Tex., Dallas.—Oak Cliff Lumber Co. increased capital from \$30,000 to \$60,000.

Tex., Forest.—Chronister Lumber Co., capital \$300,000, inepd. by Louis Lipsitz, G. B. Foster, W. B. Marsh.

Tex., Fort Stockton.—Stockton Lumber Co. increased capital from \$15,000 to \$40,000.

Tex., San Antonio.—Hillyer Deutsch-Jarrett Co. increased capital from \$100,000 to \$600,000.

Va., Luray.—Helston-Miller Co., Vernon H. Ford, Pres., increased capital from \$25,000 to \$50,000.

W. Va., Martinsburg.—Modern Improvement & Investment Co., V. H. Cazar, has acquired 1700 acres timber land; will develop.

### Metal-Working Plants.

Md., Baltimore.—Automobile Specialties, etc., Brosvik Mfg. Co., 316 St. Paul St., organized with B. B. Brosvik, Pres.-Mgr.; John F. Ceslosky, Secy.; Albert Sivick, Treas.; purchased 2-story 74x80 ft. building; will remodel for mfr. automobile specialties and household novelties; install mch., costing \$15,000. (See Machinery Wanted—Metal-Working Machinery.)

### Mining.

Mo., Seneca.—Tripoli.—National Tripoli Co., capital \$300,000 organized to develop tripoli deposits.

Mo., Carthage.—Marble.—Lautz-Missouri Marble Co. inepd. with \$75,000 capital.

Okla., Miami.—Boska Mining Co., capital \$200,000, inepd. by D. H. Wilson, L. D. Horning, both Miami; A. A. Beard, Tulsa, Okla.

Tenn., Thompson Station.—Phosphate.—Midwest Chemical Co., Ellis Soper, Pres. and Const. Engr., 402 Independent Life Bldg., Nashville, Tenn., will develop 400 acres phosphate land. (Lately noted.)

### Miscellaneous Construction.

Ga., Atlanta.—Memorial Arch.—City Park Comms. contemplete erection of memorial arch at Grant Park; John Francis Downing and B. A. Houser, Archts.

Ga., Savannah.—Engine-room.—G. H. Tilton & Son will probably rebuild engine-room of hosiery mill damaged by explosion at loss of \$25,000.

Md., Baltimore.—Coal Piers.—Western Maryland Ry., H. A. Lane, Ch. Engr. let contract to Wellman-Seaver-Morgan Co., Cleveland, O., to build at Port Covington boat-loading plant for cargoing and bunkering all sizes of vessels, from bay schooners and tugs to 20,000-ton ships; equipment costing over \$250,000. (Previously noted to expend \$622,800 on extension to coal piers.)

Tenn., Memphis.—Levee.—Miller Levee Dist. No. 2 will construct 164,000 cu. yds. levee, 3500 cu. yds. ditch in Section 1; 375,000 cu. yds. levee enlargement in Section 2; bids until Jan. 8; C. S. Christian, Ch. Engr., Room 424 State Natl. Bank Bldg., Texarkana, Ark. (See Machinery Wanted—Levee Construction.)

Tex., Dallas.—Mausoleum.—Grove Hill Cemetery Co. let contract to Southwestern Mausoleum Co., Little Rock, Ark. to erect \$100,000 mausoleum of white Georgia marble with capacity of 200 or 300 crypts.

Tex., Sherman.—Mausoleum.—Sherman Mausoleum Assn. will construct mausoleum; has plans by Laurence V. Sheridan for grounds, driveway and location of structure. (Supersedes recent item.)

W. Va., Huntington.—Mausoleum.—Sanitary Mausoleum Co., U. J. Smith, Gen. Mgr., Reading, Pa., will construct communal mausoleum in Woodmere.

### Miscellaneous Enterprises.

Fla., Bartow.—Publishing.—Folk County Record, J. G. Gallimore, Editor, will construct 2-story 50x75-ft. building; C. B. Bonfoey, Archt., Tampa, Fla.

Fla., Jacksonville.—Exporting.—Atlantic & Gulf Exporting Co., capital \$2,000,000, inepd. with following officers: W. B. Gillean, Pres., New Orleans; John H. Powell, V.-P., Jacksonville, Fla.; H. L. Richmond, Secy.-Treas.

Fla., Pensacola.—Transportation.—L. H. Aiken Transportation & Towing Co., capital \$250,000, inepd. with following officers: Alexina G. Aiken, Pres.; Isaac H. Aiken, V.-P.; Thos. W. Saltmarsh, Secy.-Treas.

Fla., Port Tampa.—Phosphate Elevator.—Atlantic Coast Line R. R., J. E. Willoughby, Ch. Engr., Wilmington, N. C., let contract to Hunt Mfg. Co., New York, to construct 420-ft. phosphate elevator and install mch.; concrete and steel construction, costing \$300,000; capacity 500 tons phosphate per hour; J. W. Morris, Gen. Agt. (Lately noted to deepen canal.)

Fla., Tampa.—Lithographing, etc.—H. & W. B. Drew Co., Stovall Bldg., Charles Doll, in charge, will establish branch.

Fla., Tampa.—Steamship Line.—Tampa Inter-Ocean Steamship Co., Philip Shore, Pres., increased capital from \$100,000 to \$500,000.

Ky., Ashland.—Fire Equipment, etc.—City, Mr. Dysard, Mayor, contemplates acquiring site, erection of building, purchasing 2 fire trucks and complete apparatus.

La., Boyce.—Potato Curing.—J. Dawson Johnson, Cashr. Bank of Boyce, interested in establishment of potato curing house of 10,000-bu. capacity.

Md., Baltimore.—Hardware.—Anderson & Ireland Co., 111 Light St., increased capital from \$50,000 to \$150,000.

Md., Baltimore.—Construction.—H. Calvin Barnes Co., 113 E. Franklin St., capital \$25,000, inepd. by H. Calvin Barnes, Clarence L. Billmyer, James R. Clark, Jr.

Md., Baltimore.—Laboratory, etc.—Smith-Eynon-Armstrong Laboratories & Sales Co., increased capital to \$200,000.

Md., Baltimore.—Steamship Lines.—Atlantic, Gulf & Pacific Steamship Corp., 408 Water St., increased capital.

Md., Baltimore.—Seeds, etc.—Thayer-Thomas

In writing to parties mentioned in this department, it will be of advantage to all concerned if the Manufacturers Record is mentioned.

Co., 825 Equitable Bldg., capital \$100,000, 'n-corporated by Fred. H. Thayer, J. A. Wade Thomas, William I. Norris.

Md., Baltimore—Laundry.—Fulton-Grand Laundry Co., 1719 E. Oliver St., increased capital from \$20,000 to \$50,000.

Md., Cumberland—Printing.—Times & Alleganlian Co., 5 S. Mechanic St., capital \$125,000, inceptd. by Frank Lee Carl, Joseph K. Mooney, Grover C. Snyder.

Md., Jarrettsville—Transportation.—Jarrettsville Truck Co. organized with Jas. R. Phillips, Prest.; John M. Tipton, Secy.-Treas.; Paul McDaniel, Mgr.; operate line between Jarrettsville and Baltimore. (Lately noted inceptd., capital \$8000.)

Md., Towson—Printing.—Jeffersonian Printing & Publishing Co., W. Gill Smith, Prest., increased capital from \$10,000 to \$30,000.

Miss., Jackson—Products Exchange.—Mississippi Farm Products Exchange, capital \$25,000, inceptd. by G. B. Harper, Fayette, Miss.; J. J. Taylor, Gulfport, Miss.

Mo., St. Louis—Contractors' Supplies.—Eclipse Electrical Co., Chas. E. Willey, Prest., 650 S. 2d St., let contract to A. Markham & Co., 425 Floyd St., to erect 1-story-and-basement 56x152-ft. building.

S. C., Charleston—Floral.—Charleston Floral Co., capital \$1000, inceptd. with following officers: Robert Millican, Prest.; Susan Frost, Secy.-Treas.

S. C., Charleston—Transportation.—Carolina Transport Co., capital \$5000, inceptd. with M. Goldsmith, Prest.; E. M. Fox, Secy.

S. C., Orangeburg—Musical Instruments.—Marchant Music Co., capital \$20,000, inceptd. with A. A. Marchant, Prest.; W. W. Marchant, V.-P.-Secy.

Tenn., Memphis—Laundry.—Independent Steam Laundry, J. A. Manley, Supt., has purchased site; will remodel building for laundry and install mch.

Tex., Beaumont—Exporting and Importing.—Beaumont Export & Import Co. increased capital from \$150,000 to \$500,000.

Tex., Brenham—Hardware.—F. W. Schurenberg increased capital from \$100,000 to \$200,000.

Tex., Corsicana—Amusements.—Corsicana Amusement Co., capital \$33,000, inceptd. by W. T. McEwler, W. M. Peck, E. S. McGee.

Tex., Denton—Dairy.—Dairy Farmers' Co-operative Society inceptd. by C. H. Smooth, John Wells, J. M. Evans.

Tex., Eastland—Publishing.—Old Belt Publishing Co., capital \$50,000, inceptd. by H. L. Moseley, R. K. Phillips, P. S. Wolfe.

Tex., Fort Worth—Laundry.—Mowen Family Laundry, capital \$2500, inceptd. by C. A. W. B. and C. A. Wheeler, Jr.

Tex., Galveston—Hardware.—Black Hardware Co. increased capital from \$200,000 to \$500,000.

Tex., Houston—Plumbing, etc.—Modern Plumbing & Electric Co. increased capital from \$10,000 to 20,000.

Tex., Mount Pleasant—Potato Curing.—T. H. Gregory will probably rebuild sweet potato curing plant burned at loss of \$5000.

Tex., San Antonio—Amusement Park.—Liberty Amusement Co., capital \$10,000, inceptd. by W. J. and Nelson Lytle, Laura S. Roberts.

W. Va., Huntington—Transportation.—White Transportation Co., capital \$50,000, inceptd. by L. E. Stephens, Z. G. Bunch, J. R. Saul.

Va., Louisa—Hardware.—Louisa Hardware Co. increased capital from \$25,000 to \$75,000.

Va., Norfolk—Plumbing Supplies.—Tidewater Plumbing Supply Co., Emil Fricke, Secy., increased capital from \$50,000 to \$100,000.

Va., Richmond—Publishing.—Johnson Publishing Co., capital \$1,500,000, inceptd. with

Andrew J. Gray, Jr., Prest.; F. H. Perry, V.-P.; Ramsey Bancroft, Secy.-Treas.; consolidation of Richmond Corp. and B. F. Johnson Publishing Co.

Tex., Victoria—Hardware.—Victoria Hardware Co. increased capital from \$30,000 to \$80,000.

### Miscellaneous Factories.

Ala., Gadsden—Ice Cream.—C. K. Crossfield has purchased plant of Lokey Ice Cream Co.

Ark., Little Rock—Films.—Arkansas Specialty Film Co., capital \$35,000, inceptd. by W. E. Bogart, L. B. Rust, R. H. Tomlinson.

Ga., Columbus—Chera-Cola.—Chera-Cola Co. contemplates increasing capital from \$75,000 to \$1,000,000. (Supersedes recent item.)

Ky., Louisville—Biscuits.—National Biscuit Co. will occupy 1 story 95x115 ft. building to be erected by G. M. Clark, New Albany, Ind.; contract let.

Md., Baltimore—Paper Boxes.—L. Gordon & Son, 207 Fallsaway, increased capital from \$35,000 to \$85,000.

Md., Baltimore—Stearic Acid.—A. Gross & Co., New York, acquired Canton plant of Virginia Red Oil Products Corp.; establish stearic acid plant.

Md., Baltimore—Loft Building.—Leo Wetzler, 327 W. Baltimore St., purchased 84x175-ft. site and will erect industrial bldg.

Md., Baltimore—Butterine.—A. H. Kuhlmann Co., Frederick Rd., increased capital from \$50,000 to \$100,000.

Md., Baltimore—Paint.—Hirshberg Paint Co., 166 W. Pratt St., increased capital from \$220,000 to \$520,000.

Md., Baltimore—Pianos.—Peabody Piano Co., 216 W. Saratoga St., increased capital to \$200,000.

Md., Baltimore—Paper.—Henry D. Mentzel & Co., 34 Light St., increased capital from \$10,000 to \$100,000.

Md., Baltimore—Monuments.—Cannon-Wiley Corp., 607 Union Trust Bldg., capital \$100,000, inceptd. by Lucius Q. C. Lamar, Cornelius Roe, Edwin F. A. Morgan.

Mo., St. Louis—Beverages.—Falstaff Corp., 3642 Forest Park Blvd., capital \$500,000, inceptd. with Jos. Griesedieck, Prest.; Oscar Fischer, Edwin Schiele.

Mo., Kansas City—Farnsworth Co., capital \$50,000, inceptd. by B. A. Hinman, D. B. Farnsworth, Jr., Chas. M. Blackmar.

Mo., St. Louis—Chemicals.—Nulsen Corp. consolidated with J. C. Finck Mineral Milling Co., capital \$600,000.

N. C., Lexington—Creamery.—Davidson County Creamery Co., J. W. Bowers, Treas., will increase capital from \$4000 to \$15,000.

N. C., Winston-Salem—Tobacco.—Bailey Bros., M. D. Bailey, Sr., Prest., increased capital from \$300,000 to \$1,000,000.

N. C., Madison—Tobacco.—F. F. Webster & Sons will probably rebuild burned tobacco-house.

Okla., Oklahoma City—Nokel Co., capital \$20,000, inceptd. by W. G. Williams, F. B. Owens; both Oklahoma City; F. J. Storm, Amarillo, Tex.

S. C., Columbia—R. L. Bryan increased capital from \$50,000 to \$100,000.

S. C., Springfield—Lime-Cola.—Lime-Cola Bottling Co. will probably rebuild plant burned at loss of \$15,000.

Tenn., Chattanooga—Clothing.—Arthur Nash, Cincinnati, O., interested organizing \$50,000 company to establish golden-rule clothing factory.

Tenn., Chattanooga—Rubber.—Dubois Rubber & Tube Co., L. H. Lightfoot, Mgr., let contract to Chickamanga Quarry and Construction Co. to erect 2-story bldg., fireproof

construction; 25,000 sq. ft. floor space; daily capacity 500 tires and tubes; will construct 1-story boiler-house, 2000 sq. ft. floor space; construction by owner. (Lately noted.)

Tenn., Knoxville—Ice Cream.—Knoxville Drug Club, Dan. M. Chambliss, Prest., will erect plant for mfr. of ice cream.

Tenn., Memphis—Bags.—Central Bag Co. will increase capital from \$10,000 to \$30,000.

Tex., Amarillo—Drugs.—Thompson Drug Co. increased capital from \$75,000 to \$100,000; changed name from E. R. Roach Drug Co.

Tex., Dallas—Clothing.—Perkins Bros. Co. increased capital from \$600,000 to \$750,000.

Tex., Dallas—Ice Cream.—Marshall Bros., Arthur Marshall, Secy.-Treas.-Mgr. Contr., 513 Kentucky St., will erect 2-story-and-basement 100x40-ft. fireproof building; brick construction; install \$20,000 mch.; contract let; daily output 2000 gals. ice cream; R. C. Marshall, Constr. Engr., 837 Second Ave., lately noted. (See Machinery Wanted—Ice Plant; Cabinets.)

Tex., Denison—James Boyd Co., capital \$100,000, inceptd. by R. G. and James Boyd, H. L. Willis.

Tex., Galveston—Paper.—Galveston Paper Co., capital \$30,000, inceptd. by J. L. and A. M. Souza, Leo Dreyfus.

Tex., Houston—Bakery.—E. Hines, 1816 Hardy St., will probably rebuild bakery burned at loss of several thousand dollars.

Tex., Mission.—Stolz Mfg. Co., capital \$24,000, inceptd. by O. W. Stolz, J. E. Holmes, E. A. Wright.

Tex., Nixon—Creamery.—Nixon State Bank and First National Bank of Nixon interested in establishing creamery.

Tex., San Antonio—Mattresses.—L. K. L. Mattress Factory, capital \$3000, inceptd. by Jas. Kapp, A. J. Watson, H. E. Lockhart.

Va., Hopewell—Pulp and Paper.—Hummel-Ross Fiber Corp., Thos. W. Ross, V.-P., has let contract to Harrison Construction Co., Petersburg, Va., to erect 1 and 4-story buildings; equip to mfr. sulphate wood pulp and paper; 75-acre site. (Previously noted organized, capital \$5,000,000, etc.)

Va., Lynchburg—Creamery.—Service Creamery, capital \$100,000, organized, with Earl M. Blair, Prest.-Treas.; B. E. Hughes, V.-P.; J. W. Arthur, Secy.; acquired plant of Lynchburg Dairy & Ice Cream Corp.

Va., Richmond—Collars.—C. W. Ferguson Collar Co., capital \$75,000, inceptd. with Blair H. Northern in charge.

Va., Richmond—Tobacco.—Allen & Ginter, branch Liggett & Myers Tobacco Co., 6th and Carey Sts., has let contract to H. K. Ferguson, 25 W. 45th St., New York, to construct second unit of of five unit factory, costing \$200,000; Francisco & Jacobus, Archts., New York.

### Motor Cars, Garages, Tires, Etc.

Ark., Little Rock—Filling Station.—Carl and Bernard Guenter will remodel building for drive-in filling station; hollow tile with stucco pebble finish; \$5000; install complete fire-vulcanizing plant.

Ark., Marianna—Garage.—Marianna Motor Car Co. will probably rebuild burned garage.

N. C., Asheville—Garage.—Buncombe County Commrs. will erect garage; 30x90 ft.; 2 story; first floor stone and concrete and upper floor frame.

D. C., Washington—Garage.—Gompers Garage, capital \$6000, inceptd. by Samuel H. Gompers, J. Barry O'Rourke, Roger O'Donnell.

Fla., Jacksonville—Motor Trucks.—Wm. Thomas Corp., capital \$500,000, chartered by Wm. C. Thomas, H. B. Phillips, both Jacksonville; Cornelius Thomas, Miami, Fla.

Fla., Jacksonville.—Automobiles.—Vaughn Automobile & Carriage Co., capital \$50,000, incptd. by E. Vaughn, Prest.; R. B. Sutton, V.-P.; James Murray, Secy.; B. W. Gorden, Treas.

Fla., Milton.—Automobiles.—Allen-Faircloth Motor Co., capital \$50,000, incptd. by R. J. Allen, Prest.; D. Faircloth, V.-P.; T. C. Rozier, Secy.-Treas.

Fla., Sanford.—Automobiles.—Edward Higgins, capital \$100,000, incptd. by Edward Higgins, Prest.-Gen. Mgr.; Jas. K. Higgins, V.-P.; Adelaide Higgins, Secy.-Treas.

Fla., Tampa.—Automobile Supplies.—J. M. Keely Supply Co., capital \$25,000, incptd. with following officers: J. M. Keely, Prest.; Mara A. Keely, V.-P.; Henry P. Harvey, Secy.-Treas.

Ky., Corbin.—Garage.—O. G. Catson, Barboursville, Ky., will erect garage; 3 story; 60x115 ft.; brick; steel; R. F. Graf, Archt., 607 Amstein Bldg., Knoxville, Tenn.

Md., Baltimore.—Garage.—City will erect \$13,000 garage and blacksmith shop; 28x110x15 ft. high; brick; tin roof; cement floor; electric lighting.

Ky., Henderson.—Garage.—Younz Garage will probably rebuild burned building; loss \$25,000.

Md., Baltimore.—Garage.—Truck Tire Sales Co., 701 Hillen St., capital \$23,000, incptd. by Wm. G. Schamberger, Thomas L. Whalen, Wm. I. Norris.

Miss., Laurel.—Automobiles.—W. H. Daniel Automobile Co. increases capital from \$100,000 to \$300,000.

N. C., Greensboro.—Garage.—R. K. Motor Co., C. H. Rawls, Mgr., will erect garage; construction in spring.

Okla., Oklahoma City.—Automobiles.—Hickman-Smith Automobile Co., capital \$15,000, incptd. by E. A. Hickman, H. E. Smith, F. W. Smith.

Okla., Oklahoma City.—Service Station.—J. R. McCoy, Ardmore, Okla., will erect sales and service building; 1 story and basement, 50x140 ft.; Jean Knox, Archt.-Contr., 530 W. 5th St., Oklahoma City.

Tenn., Johnson City.—Repair Shop.—Automobile Renewal Co., Buford A. Mathes, Prest., increases capital to \$30,000; has under construction repair shop with frontage of 86 ft.; cement floors; steam heat; three departments, including mechanical, painting and trimming, etc.

Tex., De Kalb.—Garage.—South Garage will probably rebuild burned building; loss \$12,000.

Tex., Iowa Park.—Garage.—City Garage, owned by G. B. Gauntt, will probably be rebuilt; loss \$45,000.

W. Va., Charleston.—Automobile Repair.—James Fisher & Son will probably rebuild burned plant; loss \$50,000.

### Railway Shops, Terminals, Roundhouses, Etc.

Okla., Cushing.—Atchison, Topeka & Santa Fe Ry., F. M. Bisbee, Ch. Engr., Amarillo, Tex., will erect concrete automatic electric locomotive coaling and sanding plant of 300-ton capacity; Roberts & Schafer Co., Contr., Chicago, Ill. (Lately noted.)

Okla., Guthrie.—Atchison, Topeka & Santa Fe Ry., F. M. Bisbee, Ch. Engr., Amarillo, Tex., will erect concrete automatic electric locomotive coaling and sanding plant of 300-ton capacity; Roberts & Schafer Co., Contr., Chicago, Ill. (Lately noted.)

Okla., Skedee.—Atchison, Topeka & Santa Fe Ry., F. M. Bisbee, Ch. Engr., Amarillo, Tex., will erect concrete automatic electric locomotive coaling and sanding plant of 300-ton capacity; Roberts & Schafer Co., Contr., Chicago, Ill. (Lately noted.)

W. Va., Chiefton.—Western Maryland Ry., H. R. Pratt, Ch. Engr., Baltimore, will extend yards; contract for grading awarded to Ferguson & Holbert, Shinnston, W. Va.

### Road and Street Construction.

Ala., Anniston.—City, H. B. Rudisill, Mayor, contemplates paving streets east of Noble St.; issue bonds.

Ala., Birmingham.—City Comsn., N. A. Barrett, Prest., will improve Eleventh Ave.; improvement ordinance No. 62-D; \$16,000; Julian Kendrick, City Engr.

Ala., Birmingham.—City Comms. awarded paving contracts: Dunn Construction Co., \$13,100, pave 13th Ave.; H. N. Bowdry, \$8500, pave 14th and Cotton Aves.

Ala., Greenville.—State Highway Dept., Montgomery, Ala., will construct State highway through Butler County.

Ala., Montgomery.—City Comms., C. B. Smith, Clk., will pave sidewalks on both sides Vine St. with hexagon tile or schillinger pavement.

Ark., Fayetteville.—Washington County Comms. Rogers Special Paving Dist. will construct curb and gutters; \$18,819; Pioneer Construction Co., Contr., Kansas City, Mo.

Ark., Little Rock.—City Comms.' Street-improvement Dist., Nos. 301 and 302, W. G. Hendricks, Secy., will pave and lay gutter and curb on Izard, State, Gaines, 27th and other streets; \$75,000 available; contemplate paving State St. from 23d to 27th St.

Ark., Pine Bluff.—Jefferson County Road Improvement Dist. No. 22 will construct 15 mi. hard-surfaced road connecting district with other completed highways leading to Pine Bluff; issued \$140,000 bonds.

Fla., Apopka.—Town will clay Dream Lake road to city limits; construct sidewalks; county will probably complete work. Address The Mayor.

Fla., Clearwater.—Pinellas County Comms. contemplates constructing brick road from Bridgeport to Dunedin Rd.

Fla., Fort Myers.—Lee County Comms. will resurface McGregor Blvd.

Fla., Jacksonville.—City Comsn. will pave streets, construct sewer and water systems; vote on \$1,000,000 bonds; contemplated. (Lately noted.)

Fla., St. Petersburg.—City, G. B. Shepard, Director of Finance will construct \$90 lin. ft. sidewalks along north side Yacht basin; bids until Jan. 15. (See Machinery Wanted—Paving.)

Fla., Tampa.—State Road Dept., Forrest Lake, Chrmn., Tallahassee, Fla., will construct 22 mi. asphalt block roads in Hillsborough County from Sulphur Springs to Pasco County line and from end brick on Riverview road to Manatee County line; Davis & Webb, Contrs. (Lately noted.)

Fla., Titusville.—Brevard County Comms., Cocoa Beach Special Road and Bridge Dist., will construct 18 mi. road, opus rock and asphalt treatment; \$170,000 available; Snyder, Mott & Co., Contrs., West Palm Beach, Fla.; C. M. Rogers, Engr., Daytona, Fla. (Lately noted inviting bids.)

Ga., Wrightsville.—Johnson County Comms. have under construction 3 mi. gravel road under direction of Twelfth Dist. Highway Engr., E. N. Parker, Dublin, Ga.

Ky., Smithland.—State Highway Dept., Frankfort, Ky., will construct 32 mi. Federal-aid Highway in Livingston County, known as Ohio River Route; \$54,000 available; will invite bids in spring. Lately noted. (See Machinery Wanted—Road Construction.)

La., Arcadia.—Highway Dept., Board State Engrs., 332 Maison Blanche Annex, New Or-

leans, La., will construct 17.57 mi. Arcadia-Shreveport and Arcadia-Ruston highways, Bienville Parish; W. H. Smith, Contr., Alexandria, La.; Duncan Buie, State Highway Engr., New Orleans, La. (Previously noted inviting bids.)

La., Covington.—St. Tammany Parish Police Jury will construct Rigo-lets-Mississippi State line link of Chef-Mentour highway; vote on \$250,000 bonds.

La., Lake Charles.—City will construct cement sidewalks and cement curbing on 7th St., 6th and other streets. Address The Mayor.

La., Port Allen.—West Baton Rouge Parish Police Jury, L. T. Bernard, Secy., will construct 14 mi. washed gravel roads; bids until Jan. 26. (See Machinery Wanted—Road Construction.)

La., Rayville.—Highway Dept., Board State Engrs., 332 Maison Blanche Annex, New Orleans, La., awarded road contracts: J. M. Bass & Co., Hazlehurst, Miss., 2.11 mi. Rayville-Monroe highway, Section A-1, and A. E. Perry, Colfax, La., 13.26 mi. Rayville-Winnboro highway, Section C; both Richland Parish; Duncan Buie, State Highway Engr., New Orleans, La. (Previously noted inviting bids.)

La., Shreveport.—City, J. C. Flanagan, Secy.-Treas., will pave Lee (View), Common and Caddo Sts.; asphaltic concrete; bids until Jan. 11. (See Machinery Wanted—Paving.)

La., Tallulah.—Highway Dept., Board State Engrs., 332 Maison Blanche Annex, New Orleans, La., will construct 5.21 mi. Tallulah-St. Joseph highway, Section A, Madison Parish; \$31,968; S. K. Jones, Contr., 1252 Herbert Ave., Memphis, Tenn.; Duncan Buie, State Highway Engr., New Orleans, La. (Previously noted inviting bids.)

La., Winnfield.—Winn Parish Police Jury, Kenneth Watts, will construct roads; issue \$1,000,000 bonds.

Md., Baltimore.—City, Wm. F. Breeding, Mayor, plans the paving of Pennsylvania Ave.

Md., Baltimore.—Paving Comms. will pave streets in new annex, including Clinton, Lombard, East Ave., 8th St., Washington Rd., etc.

Md., Frederick.—Frederick County Comms. are constructing hard-bred road from Myersville; 4½ mi; Marion G. Brandenburg, Contr.

Miss., Canton.—State Highway Dept., Jackson, Miss., will grade 9.8 mi. Canton-Pickens roadway; \$75,000; bids opened; H. C. Dietzer, State Highway Engr., Jackson, Miss.

Mo., California.—State Highway Dept., Jefferson City, Mo., will construct 4.25 mi. road, State-aid Project S-20.14, Moniteau County; E. C. Johnson, Contr., Jefferson City, Mo. (Previously noted inviting bids.)

Mo., Farmington.—State Highway Dept., Jefferson City, Mo., will construct 3.25 mi. State road from Madison County line toward Libertyville, State-aid Project S-20.13, St. Francois County; low bidder, F. T. O'Dell. (Previously noted inviting bids.)

Mo., Galena.—Stone County Comms. will construct roads; \$60,000 available.

Mo., Greenville.—Wayne County Comms. will construct 15 mi. State Highway from Piedmont to Silva; \$23,000.

Mo., Houston.—State Highway Dept., Jefferson City, Mo., will build reinforced concrete bridges on St. Louis Springfield road, Federal-aid Project 90, Texas County.

Mo., Milan.—State Highway Dept., Jefferson City, Mo., will construct 1.4 mi. road east and west through Milan, State-aid Project S-20.15, Sullivan County; low bidder, Frazier-Davis Co., Arcade Bldg., St. Louis. (Previously noted inviting bids.)

Mo., Nevada.—State Highway Dept., Jefferson City, Mo., will construct 2.06 mi. State



road from Horton, State-aid Project S-20.12, Vernon County; Moss & Schuedler, Contrs. (Previously noted inviting bids.)

Mo., St. Louis.—City, H. W. Kirl, Mayor, plans paving streets with granite blocks.

N. C., Asheville.—Buncombe County Commissioners are constructing 4 mi. road paralleling Haywood Rd.; sand.

N. C., Charlotte.—City, A. H. Wearn, Commissioner, contemplates paving E. 4th St. from College to main boulevard, in Myers Park.

N. C., Hertford.—Perquimans County Commissioners will construct hard-surfaced highways; 70,000 yds. hard-surface paving; bids until Feb. 17; Carolina Engineering Co., Engr., 412 Southern Bldg., Wilmington, N. C. (See Machinery Wanted—Paving.)

N. C., Raleigh.—Dept. Public Works will construct curbs and gutters; issued \$35,000 bonds.

N. C., Salisbury.—Board of Aldermen, W. B. Strachan, Mayor, plans the paving of additional streets.

N. C., Winston-Salem.—Wm. T. Brown will grade streets near chemical plant.

Okl., Hobart. — City will hard-surface streets; gravel. Address The Mayor.

Okl., Idabel.—State Highway Dept., Oklahoma City, will construct connecting link in McCurtain County of Williams highway; contract let.

Okl., Oklahoma.—City will pave 19th St., \$29,374.42; issued bonds for paving 25th St.; contract for additional paving approved, including Indiana Ave., College Addition, 26th St., etc.

Okl., Tulsa. — City Comsn. will resurface 1st St. east and west of Main St.; \$100,000; accepted bids of Standard Paving Co. and Parker-Washington Paving Co. (Lately noted inviting bids.)

S. C., Bennettsville.—Town, H. J. Riley, Clk. and Treas., will construct 70,000 sq. yds. pavement, 40,000 lin. ft. combination curb and gutter, storm sewerage; bids until Feb. 1; Harwood Beebe, Engr., Spartanburg, S. C. (See Machinery Wanted—Paving.)

S. C., Greenwood.—City plans paving Maxwell Ave.; 600 yds.; also contemplates paving other streets; \$200,000 available. Address The Mayor.

Tenn., Chattanooga.—City, Alexander W. Chambliss, Mayor, will pave streets in Paving Dist. No. 242; issue \$18,667.35 bonds.

Tenn., Clarksville.—City, W. E. Beach, Mayor, will grade and pave streets; E. W. Meyers, Engr., Weston St., Salem, N. C.

Tenn., Clinton.—State Highway Dept., W. P. Testermann, Secy., Nashville, Tenn., contemplates grading and paving in Anderson County; 20 mi.; macadam or concrete; \$225,000; construction in spring.

Tenn., Jasper.—Marion County Comms. will construct section of Dixie Highway 37 mi. from Whitwell to Sewanee; \$750,000 State and Federal Aid; voted \$250,000 bonds.

Tenn., Knoxville.—City Comsn. will create improvement districts and pave streets.

Tenn., Livingston. — Overton County Commissioners, A. C. Copeland, Jr., Clk., will construct pike road; cost \$450,000; bids until Jan. 22; W. H. Peeble, Supt. (See Machinery Wanted—Road Construction.)

Tex., Ballinger.—Runnels County Comms. will construct 5.76 mi. State Highway No. 39; Federal Aid Projects No. 176; \$40,248.53; U. Stephens, County Engr.

Tex., Burnet.—Burnet County Comms., C. A. Baker in charge, will grade 10 mi. road; \$5500 available; will invite bids; Hess & Skinner, Engrs., Dallas, Tex. Lately noted. (See Machinery Wanted—Road Construction.)

Tex., Columbus.—Colorado County Court, John C. Hoyo, County Judge, will construct 4 mi. gravel highway between Glidden and Borden; \$45,000 available; bids will be received in February; Ben. H. Faber, Engr., Eagle Lake, Tex. Lately noted. (See Machinery Wanted—Road Construction; Road Machinery.)

Tex., Denton.—Denton County Comms. will construct Denton-Sanger highway; \$25,000; Federal aid.

Tex., Eastland.—City, Mr. Lander, City Mgr., will construct sidewalks.

Tex., Eastland.—Eastland County Comms. will construct 19.55 mi. road paved with bitulithic; \$510,977.71; \$100,000 Federal Aid; W. R. Eccles, County Engr.

Tex., El Paso.—City, Chas. Davis, Mayor, will construct pavement on Bliss St.; bids opened Jan. 6.

Tex., Franklin.—Robertson County Comms. will surface with gravel 18 mi. road through Franklin and Wheelock to Brazos County line; voted \$35,000 bonds. (Lately noted to vote.)

Tex., Fairfield.—Freestone County, S. W. Robinson, County Judge, will construct roads in Road Dist. No. 11; issued \$33,000 bonds; Bryant & Huffman, County Engrs., 211 Littlefield Bldg., Austin, Tex.

Tex., Fort Worth.—Tarrant County Commissioners, Hugh L. Small, County Judge, will construct 16 mi. Hicks road; Federal aid \$145,000; will invite bids.

Tex., Fort Worth.—Tarrant County Commissioners, W. E. Yancy, County Auditor; no bids received on road building contracts recently noted to be awarded; Commr. Jas. A. Childers of Precinct 1 will construct Stove Foundry road, Commr. John Roberts of Precinct 4 in the Keller-Grapevine road, and Commr. H. M. Hightower, Smithfield-Bear Creek road in Precinct 3. (Lately noted inviting bids.)

Tex., Kaufman.—Kaufman County, W. P. Williams, County Judge, will improve 16.21 mi. graveled Federal-aid road on State Highway No. 15 with bituminous topping; also 10.54 mi. road in Precinct No. 1 and 14.86 mi. in Precinct No. 7, graveled Federal-aid road on State Highway No. 40; bids until Feb. 3; Bartlett & Ranney, County Engrs., Kaufman, and 612 Calcasieu Bldg., San Antonio, Tex. Lately noted. (See Machinery Wanted—Road Construction.)

Tex., Kaufman.—Kaufman County, W. P. Williams, County Judge, will construct 14.86 mi. gravel surfaced road on State Highway No. 49 through Kemp, Mebank Precinct No. 7; bids until Feb. 3; Bartlett & Ranney, County Engrs. Lately noted. (See Machinery Wanted—Road Construction.)

Tex., Liberty.—Liberty County Comms. will repair road between Houston and Beaumont in Liberty County.

Tex., Mt. Pleasant.—Titus County Comms., D. M. Cook, County Judge, will construct 20.17 mi. gravel surfaced road on Highway No. 35 from 3.6 mi. southeast of Mt. Pleasant to Taleo; bids until Jan. 25; Wilder & O'Neal, County Engr. Lately noted. (See Machinery Wanted—Road Construction.)

Tex., Nacogdoches.—Nacogdoches County Comms., J. M. Marshall, County Judge, will construct 9.7 mi. State Highway No. 35 from Nacogdoches to Angellina county line; \$118,207.94; Lamar Acker, County Engr.

Tex., Oak Cliff (Station Dallas).—City Comms. contemplete constructing Kessler Blvd., beginning at Davis and Rosemont Sts., 100 ft. wide; paved.

Tex., Seguin.—Guadalupe County Comms., J. B. Williams, County Judge, will construct 18.5 mi. gravel surfaced road on State Highway No. 3; \$75,000 Federal Aid; bids until

Jan. 20; Hess & Skinner, County Engrs., S. W. Life Bldg., Dallas, Tex. (See Machinery Wanted—Road Construction.)

Tex., San Antonio.—Bexar County Comms. will resurface and retop Culebra road.

Va., Denbigh.—State Highway Comsn., Geo. P. Coleman, Commr., Richmond, Va., will construct Newport News-Richmond Highway between Williamsburg and Richmond.

Va., Graham. — Town, V. L. Sexton, City Atty., will improve streets; bids until Jan. 20; \$35,000 available.

Va., Lynchburg. — City plans general improvements, including paving of streets, etc.; issue \$2,000,000 bonds. Address The Mayor.

Va., Lynchburg.—City, E. A. Beck, City Mgr., will improve Church St. between 5th and 13th Sts.; bids until Jan. 29. (See Machinery Wanted—Paving.)

W. Va., Martinsburg.—City, T. W. Sparrow, Street Commr., will improve streets on Burke, Raleigh, Martin and Church Sts. and Maple Ave.; 2 mi.; probably will let contract.

### Sewer Construction.

D. C., Washington.—Dist. Comms., 500 Dist. Bldg., let contract to Warren F. Brenizer Co., 101 New York Ave., to construct 700 ft. 15 in. diam. pipe and 350 ft. 12 in. diam. pipe outlet sewers on Nebraska Ave. and Broad Branch Rd., costing \$3500; C. W. Kutz, Engr. Commr., U. S. Army; A. E. Phillips, Sanitary Commr.

D. C., Washington. — District Comms., 500 District Bldg., will reconstruct 700 lin. ft. of 9-ft. x 6-ft. 9-in. concrete sewer; bids until Jan. 13. (See Machinery Wanted—Sewers.)

Fla., Jacksonville. — City Comsn., John S. Bond, Chrmn., will construct sewerage system, paving and extend water mains; contemplete voting on \$1,000,000 bonds. (Lately noted.)

Fla., St. Petersburg.—City Comsn. let contract to W. J. Overman at \$8,000 to construct storm sewer with collateral branches extending from 9th St. to the bay.

La., Lake Charles.—City Comsn. plans to construct storm and sanitary sewers in city limit extensions; Bartlett & Ranney, Archts.

Mo., Carl Junction.—City, C. W. Roney, Clk., will construct sewers; A. C. Moore, Engr., Frisco Bldg., Joplin, Mo.; invites bids.

Mo., Springfield.—City will construct sewers; lay 25,230 ft. 8-in. vitrified sewer pipe, including 87 manholes; 660 yds. 8 flush tanks and lamp holes, costing \$43,596; W. C. Culler, Engr.; Ralph Langston, Contr. (Lately noted to construct sewer system.)

N. C., Asheville.—City Comms. contemplete bond issue to construct additional sewer line, pave streets, etc.

N. C., Raleigh.—Dept. of Public Works, J. D. Bray, Commr., authorized issue of \$100,000 bonds for construction of sewers sufficient to lay 32,000 ft. new lines. (Lately noted contempleted.)

N. C., St. Pauls.—Town, John S. Butler, Clk., will construct sewer and water-works system; bids until Feb. 3; Carolina Engineering Co., Engr., 412 Southern Bldg., Wilmington, N. C. Lately noted. (See Machinery Wanted—Sewer Construction.)

N. C., Winston-Salem.—Wm. T. Brown will install sewer and water mains near chemical plant.

S. C., Blacksburg.—Town will vote Jan. 20 on installing sewer and water systems. Address The Mayor.

Tenn., Alcoa.—City Comms. issued bonds for acquiring and purchasing sanitary sewers, sewage-disposal plant and sewerage pumping station. (Lately incorrectly noted to construct sewers, etc.)

Tex., Austin.—City let contract to C. H. Foley, 1629 Elizabeth St., Wichita Falls, Tex.,

to construct 8450-ft. segmental and 9327-ft. tile block pipe storm sewers in Travis, Austin, Indiana and Ohio Sts., etc.

Tex., Austin.—City contemplates construction sewage-disposal and intercepting sewers; John Wilson, Engr., First Natl. Bank Bldg., Duluth, Minn.; A. V. Overland, City Engr., Austin.

Tex., Eastland.—City, W. Lander, Mgr., has let contract to Jones Construction Co. to construct storm sewers, extend sewer system, install sewerage disposal plant; J. A. Wright, City Engr. (Lately noted issued \$250,000 bonds.)

Tex., Eastland.—City, W. Lander, Mgr., let contract to Jones Construction Co. to extend sewerage system in Daugherty Ave. south of Sadosa St., and Burkett, Harrell-Sikes and Chastain additions; disposal plant on Leon River; build additional storm sewers costing \$185,000. (Lately noted issued \$250,000 bonds.)

Tex., San Antonio.—City, Sam. C. Hill, Mayor, let contract to McKenzie Construction Co. to construct storm sewers on Indianapolis St. costing \$57,000; Hans Helland, City Engr. (Lately noted.)

Va., Richmond.—C. E. Bolling, Director of Public Works, plans extension sewers on B and C Sts. at Belt Line and in West End.

W. Va., Spencer.—Town contemplates improving sewerage and water systems. Address The Mayor.

### Telephone Systems.

Miss., Natchez.—Cumberland Telephone & Telegraph Co., D. W. Lacy, Dist. Mgr., will expend \$175,000 on improvements; will have three additional long-distance lines to Vicksburg; additional long-distance line to Water-proof; through line to Gloster; additional long-distance line to Jonesville.

### Textile Mills.

Ga., Macon.—Cotton Goods.—Bibb Manufacturing Co., William D. Anderson, Pres., Columbus, Ga., authorized capital increase from \$6,000,000 to \$7,500,000 to provide funds for expansion at Macon, Columbus and Porterdale mills.

La., New Orleans.—Twine, etc.—International Harvester Co., Chicago, Ill., contemplates expending \$6,000,000 on construction of 6-story twine manufacturing plant and 5-story concrete and brick storage warehouse; has site with 70-ft. water frontage. (Lately noted to arrange with Dock Board for the erection of docks costing \$250,000.)

N. C., Gastonia.—Yarns.—Groves Mills will improve plant; cost \$10,000.

S. C., Blacksburg.—Cotton.—Broad River Cotton Mills, W. C. Hamrick, Pres., increased capital from \$150,000 to \$227,500.

Tex., Brenham.—Cotton Goods.—South Texas Cotton Mills increased capital from \$50,000 to \$250,000.

Tex., Houston.—Woolen.—Oriental Textile Mills, John S. Radford, Pres., increased capital from \$200,000 to \$1,000,000.

### Water-Works.

Ala., Birmingham.—Birmingham Water Works Co., H. H. Horner, Secy., increased capital from \$1,829,700 to \$2,529,700; contemplates improvements.

Ala., Birmingham.—Birmingham Water Works Co., Harry Horner, Supt., will improve water-works, costing between \$450,000 and \$500,000; will issue \$700,000 bonds; will install 2 pumps, 10,000,000-gal. and 5,000,000-gal. capacity, respectively; I. W. Ross, City Engr. (Lately noted.)

Ala., Opelika.—City let contract to J. B. McCrary Construction Co., Atlanta, Ga., to

construct additional unit to filtering system costing \$6500.

Ark., Arkadelphia.—Arkansas Light & Power Co., H. C. Couch, Pres., will improve water and light systems; will install water mains and remodel pumping plant, including filter system.

Fla., Jacksonville.—City Comsn., John S. Bond, Chrmn., will extend water mains, construct sewerage system and paving; contemplate voting on \$1,900,000 bonds.

N. C., Benson.—City issued \$45,000 bonds for water-works system. Address The Mayor.

N. C., Raleigh.—Dept. of Public Works, J. D. Bray, Commr., authorized issue of \$85,000 bonds for enlargement of water system, construct lines and acquire privately-owned systems, etc.

N. C., St. Pauls.—Town, John S. Butler, Clk., will construct water-works and sewer system; bids until Feb. 3; Carolina Engineering Co., Engr., 412 Southern Bldg., Wilmington, N. C. Bond issue lately noted. (See Machinery Wanted—Water-works.)

N. C., Winston-Salem.—Wm. T. Brown will install water and sewer mains near chemical plant.

Okla., Holdenville.—City will extend water-works system; issued \$20,000 bonds.

S. C., Blacksburg.—Town will vote Jan. 20 on installing water and sewer systems. Address The Mayor.

Tenn., Nashville.—City will repair reservoir; J. N. Chester, Engr., Union Bank Bldg., Pittsburgh, Pa.

Tex., El Paso.—City, R. C. Semple, Chrmn. of City Water Dept., will expend \$750,000 for increased and permanent water supply, including \$180,000 for fire hydrants.

Tex., Houston.—City, Dave Fitzgerald, Water Commr., will construct 3 artesian wells with daily flow from 2,900,000 to 4,000,000 gals. at central water plant on Artesian St.; total cost \$25,000.

Tex., Roby.—Roby Water & Light Co., organized by L. C. Eastland, Mgr.-Engr., Box 166; has 75,000-gal. plant; will install 100,000-gal. capacity standpipe and 30,000 to 60,000-gal. capacity wooden stove tank. Lately noted ineptd. with \$20,000 capital. (See Machinery Wanted—Standpipe; Tank.)

Tex., Slaton.—City voted \$35,000 bonds for water-works improvements. Address The Mayor.

Va., Lynchburg.—City will issue \$2,000,000 bonds for improvements to water system, city hall, schools and streets. Address The Mayor.

Va., Yorktown.—Navy Dept., Bureau of Yards & Docks, Washington, D. C., install elevated steel water tank; has plans.

W. Va., Shinnston.—City, W. S. Hursey, Mayor, will construct filter building and pumphouse; bids until Jan. 27; Roberts Engineering Co., Engr., Charleston, W. Va.

W. Va., Spencer.—Town contemplates improving water and sewerage systems. Address The Mayor.

### Woodworking Plants.

Ala., Birmingham.—Caskets.—Alabama Casket Co. increased capital from \$5000 to \$25,000.

Ala., Gordo.—Staves.—L. M. Pearson contemplates establishing stove mill.

Ark., Hope.—Cleats, etc.—Leroy B. Allen contemplates establishing plant to mfr. wooden cleats and other small articles. (See Machinery Wanted—Woodworking Machinery.)

Ky., West Louisville.—Hardwood.—Lanham Flooring Co. will probably rebuild plant burned at loss of \$30,000.

Md., Baltimore.—Wood Specialties.—Monarch

Wood Turning Corp., 30 Garrison La. (lately noted ineptd., capital \$100,000), organized by Chas. L. Cunningham, Pres.; John A. Fox, V.-P.; L. Joseph Byrne, Secy.; Walter G. Cunningham, Mgr.; has plant and mch. installed to mfr. varnish, paint-brush and umbrella handles, etc. (See Machinery Wanted—Brushes.)

Md., Baltimore.—Doors, etc.—Radford-Wright-Sanders Co., Howard and West Sts., capital \$100,000, ineptd. by John W. Sanders, Geo. W. Dexter, Chapman Murray, Jr.; mfr. sashes, doors, blinds, etc. (Lately noted Radford & Wright Co., Oshkosh, Wis., to establish plant.)

S. C., Ehrhardt.—Cooperage.—G. W. Morningstar Cooperage Co., G. W. Morningstar, Pres., let contract to W. C. Brabham to construct 24x107-ft., 36x100-ft. and 20x50-ft. buildings, costing \$20,000; brick and corrugated-iron construction; install cooperage mch., elevators, etc., costing \$15,000; daily capacity 6000 slack bbls.; A. J. Leary, Const. Engr., lately noted. (See Machinery Wanted—Cooperage Machinery; Elevator Chain; Roofing; Shafting, etc.)

Tenn., Knoxville.—Silos and Tanks.—Tennessee Silo & Tank Co., 210 Humes St. (lately noted under Foundry and Machine Plants as ineptd. with capital \$25,000, organized with John J. Graham, Pres., Treas. and Mgr.; Jas. H. Copeland, V.-P.; J. Victor Henderson, Secy.; rented plant, mfr. water tanks and wood-stave silos. (See Machinery Wanted—Steel Rods; Wire.)

Tenn., Maryville.—Broom Handles, etc.—J. H. Taylor has broom and handle plant with daily capacity of 3000 handles and 3 doz. brooms; contemplates increasing capacity.

Tenn., Memphis.—Furniture.—Memphis Furniture Mfg. Co. advises has no plans for rebuilding plant structure lately noted burned at loss of \$5000.

W. Va., Charleston.—Carriages.—Peter Fisher & Sons will probably rebuild plant burned at loss of \$50,000.

### Fire Damage.

Ala., Anniston.—Elijah Knighton's residence.

Ala., Andalusia.—Everage Grocery Co.'s building.

Ala., Attalla.—Mrs. W. F. Stowers' residence, 5th St. and 6th Ave.

Ala., Castleberry.—Mrs. E. Downing, Jr.'s residence; loss \$5000.

Ala., Gadsden.—Coleman Colvin's residence.

Ala., Hallawakee.—J. A. Allgood's planing mill; loss \$25,000.

Ala., James.—Mrs. N. D. Orum's residence, nr. James.

Ala., Lincoln.—Thos. Snipes' store; loss \$4000.

Ala., Maysville.—W. A. Harbin's store and grist mill; loss \$12,000.

Ala., Mobile.—Joel W. Goldsby's residence, 1003 Springhill Ave., occupied by William Sergeant; loss \$10,000.

Ala., White Plains.—J. P. Seabrough's store, gluing and milling plant; Andrew H. Little's store.

Ark., Camden.—J. F. Hanson and Leo Berg's residences; E. W. Copeland's residence damaged; loss \$15,000 to \$20,000.

Ark., England.—Royal Hotel.

Ark., Evening Shade.—Robert Haley's residence.

Ark., Helena.—E. P. Bloom's store on Cherry St.

Ark., Marianna.—Marianna Motor Car Co.'s garage building and Tucker Drygoods Co. and Cieners haberdashery's buildings; loss \$150,000.

Ark., Paragould.—Isis Theater, owned by Jim Hays; loss \$20,000.

In writing to parties mentioned in this department, it will be of advantage to all concerned if the Manufacturers Record is mentioned.

Ark., Scott.—Scott Cotton Growers' Assn.'s warehouse.

Fla., Tallahassee.—Farmers' Warehouse.

Ga., Alamo.—I. Idelson's 4 residences, occupied by J. H. Gross, E. M. Auld, Dr. L. P. Flordham and I. Idelson; loss \$20,000.

Ga., Columbus.—Henry B. Woolfolk's residence, Wynnton Rd.; loss \$10,000 to \$12,000.

Ga., Rhine.—S. J. Brown's cotton ginners.

Ga., Waycross.—Planters' Supply Co.'s building.

Ky., Augusta.—Heizer & Metzger's tobacco warehouse.

Ky., Henderson.—Lee Baskett's building; loss \$10,000.

Ky., Henderson.—John J. Delker's 3 buildings; loss \$30,000.

Ky., West Louisville.—Lanham Flooring Co.'s hardwood plant; loss \$30,000.

La., Covington.—Geo. H. Koepp's lumber mill; loss \$45,000.

La., Monroe.—Walter Leyens' residence, 1231 Broad St.; loss \$500; W. C. Wilhite's residence, on the River Front, nr. Trenton.

La., Swartz.—J. M. Huber's building.

Md., Big Poole.—Isaac N. Spielman's flour mill; loss \$35,000.

Md., Centerville.—Samuel W. Seney's farm house, nr. Centerville.

Md., Harney.—Geo. W. Hoffman's residence, nr. Harney.

Md., Relay.—H. L. Reese's residence; loss \$8000.

Miss., Brownfield.—Jim Meek's store.

Miss., Corinth.—Elks' Home; Mrs. R. M. Johns' residence.

Miss., Darbin.—B. F. Lampton & Co.'s store; loss \$13,000.

Miss., High Point.—T. A. Price, Dr. H. H. Tabor and R. M. Carr's stores.

Mo., St. Louis.—United Railway car sheds at De Baliviere and Delmar Aves.; Col. A. T. Perkins, Gen. Mgr.

N. C., Biltmore.—Clarence Barker Memorial Hospital; loss \$40,000.

N. C., Goldsboro.—Dr. Z. B. Spence's residence; loss \$10,000.

N. C., Greensboro.—Sanitary Mattress Co.'s building.

N. C., Madison.—F. F. Webster & Sons' tobacco storage house.

N. C., Winston-Salem.—D. C. Hancock's residence, W. Academy St., owned by Alex. Wray, 509 Park Ave.

Okla., Albany.—Sullivan Bros' store.

Okla., Oklahoma City.—W. T. Hales' building at 400 W. 24 St., occupied by Cowan Feed Store and Auto Sheet Metal Works.

Okla., Perry.—W. T. Donohue's residence.

S. C., Anderson.—Mrs. Emeline Campbell's residence.

S. C., Camden.—Camden High School. Address School Board.

S. C., Greenville.—P. C. Parkins' building on Augusta St., occupied by West End Supply Co.

S. C., Laurens.—Ed. Wilson's residence, near Laurens.

S. C., Springfield.—Lime-Cola Bottling Co.'s plant; loss \$15,000.

Tenn., Dandridge.—Col. Alf. R. Swann's residence, 5 mi. from Dandridge; loss \$75,000.

Tenn., Darden.—Duke Bros.' J. R. Lunn's, Tom Small's stores; loss \$20,000.

Tenn., Memphis.—Isaac D. Block's building at 126 N. Front St.; loss \$30,000.

Tex., Arlington.—J. P. Rossemund's cotton gin; loss \$15,000.

Tex., Austin.—University of Texas Cafeteria; loss \$10,000.

Tex., Brady.—Charlie Reed's residence, Northwest Brady; loss \$6000.

Tex., Bryan.—W. W. Wilkerson and Mrs. M. C. Berger's residences; loss \$9000.

Tex., Daingerfield.—Dr. C. S. Truitt's residence; loss \$7000.

Tex., Denton.—J. E. Bonar's residence, West Hickory St.; loss \$4000.

Tex., Desdemona.—Lone Star Hotel.

Tex., Easterly.—J. D. Easterly's building; loss \$14,000.

Tex., Fort Worth.—Mansion Hotel on E. 4th St., owned by Bascom H. Dunn; Mrs. G. W. Hollingsworth's 2 buildings, 506 and 506½ Main St.; National Bldg., 501 Main St.; loss \$250,000. (Lately noted in part.)

Tex., Fort Worth.—Mansion Hotel, 120 E. 4th St., and National Bldg., 4th and Main Sts., owned by B. H. Dunn; loss \$150,000; Mrs. G. W. Hollingsworth's and E. B. Stroud's buildings, 503-7 Main St.; loss \$50,000. (Lately noted in part.)

Tex., Gainesville.—Teague Co.'s store; loss \$20,000.

Tex., Gilmer.—Dr. J. G. Dial's residence.

Tex., Houston.—E. Hines' Bakery; loss several thousand dollars.

Tex., Hereford.—John E. McEntyre's residence, East Hereford.

Tex., Iowa Park.—City Garage's building, owned by G. B. Gauntt; loss \$45,000.

Tex., Kaufman.—Grover Nelson's cotton gin; loss \$15,000.

Tex., Marquez.—McVey Hotel, owned by Annie McVey; Mrs. H. H. Grimes' store; Lee Kaplan's warehouse; Knights of Pythias'

building; S. E. Lanier's warehouses; Irwin Bros' building.

Tex., Mount Pleasant.—T. H. Gregory's potato-curing plant; loss \$5000.

Tex., Thornton.—Farmers' Warehouse; J. B. Sherrod & Co.'s building.

Tex., Valera.—D. H. Cole's store; W. J. Carroll's theater.

Va., Danville.—Rorer A. James' building at Patton and Union Sts.

Va., Portsmouth.—Orpheum Theater; loss \$8000.

Va., Coeburn.—Central Hotel; American Cleaning & Dyeworks' Bldg.; Perry Bros' grocery store; Southern Supply Co.'s building; loss \$50,000.

Va., Pulaski.—Clyde Smith & Son's store, Commerce and Valley Sts.

W. Va., Charleston.—West Virginia State Capitol; loss \$1,250,000; J. J. Cornwell, Governor.

W. Va., Charleston.—James Fisher & Son's automobile repair plant; loss \$50,000.

W. Va., Charleston.—Peter Fisher & Sons' carriage mfg. plant; loss \$50,000.

W. Va., Eccles.—New River Collieries Co.'s amusement hall, pool room and ice house; loss \$50,000.

W. Va., Lewisburg.—Lewisburg Seminary for Girls; loss \$100,000.

W. Va., Piedmont.—S. G. Dixon Clothing Co.'s store; loss \$100,000; Geo. C. Edmon, Prest.

### Damaged by Explosion.

Ga., Savannah.—G. H. Tilton & Son's engine room of hosiery mill; loss \$25,000.

## BUILDING NEWS

### BUILDINGS PROPOSED

#### Apartment-Houses.

Fla., Sarasota.—G. W. Robinson purchased lot and is reported to erect apartment house.

La., Shreveport.—Mrs. Nettis S. Waldauer, Memphis, Tenn., is reported to erect 2 apartment houses, 406-8 Common St.; 2 suites each.

Mo., Booneville.—Harry Greaglan and others, will erect \$27,000 apartment house; 3 stories and basement; 36x70 ft.; brick, stone trim; Ludwig Abt, Archt., Moberly; construction by owner.

Mo., Kansas City.—McCanles-Miller Realty Co., Guy H. McCanles and Geo. W. Miller will erect 12-suite apartment-house, 31st and Washington Sts.

Okla., Muskogee.—L. H. Rooney will erect \$50,000 apartment-house, 543 N. 6th St.

#### Association and Fraternal.

Ala., Tuscaloosa.—Masonic Order purchased property on University Ave. and will erect \$40,000 building for students of university.

Ga., Savannah.—Young Women's Christian Association is considering plans to erect \$250,000 building at Oglethorpe and Whitaker Sts.

Mo., Macon.—Elks Lodge No. 999, Claud Wright, Chrmn. Comm., will erect \$45,000 club house; 2 stories and basement; 48x120 ft.; brick and terra cotta; Ludwig Abt, Archt., Moberly; construction by owner.

N. C., Charlotte.—Labor Temple Comm., S. L. Cauder, Secy. and Treas., 209½ W. 4th St., will erect \$125,000 temple; 160x190 ft.; brick; Cary roofing; oak floors; steam heat; electric and gas lights; W. R. Biggers, Archt., 209½ W. 4th St. (Lately noted.)

Tex., Dallas.—Young Women's Christian Association will erect fireproof building, Haskell Ave.; 3 stories and basement; slate roof; hardwood, cement, concrete and terrazzo floors; steam heat; interior tile; metal doors; Herbert M. Greene Co., Archt., 618-19-20 North Texas Bldg., receives bids until Feb. 1; separate bids for heating and plumbing; plans and specifications at office of architect. (Lately noted.)

Tex., Dallas.—Benevolent and Protective Order of Elks, Wm. H. Atwell, Exalted Ruler, will erect building.

Va., Lynchburg.—Lynchburg Lodge No. 17, Madison Heights Lodge, John W. Ferguson Lodge and Lynchburg Lodge No. 148, Odd Fellows, plan to erect \$75,000 to \$100,000 building, Church St., near 12th St.; clubrooms and offices.

#### Bank and Office.

Ala., Birmingham.—Security Savings & Loan Co., Fred. W. Dixon, Prest., will expend \$25,000 to improve building, 2125 3d Ave. N.

Fla., Miami.—First Natl. Bank, C. E. Romfh, Prest., will remodel and erect addition to building.

Ga., Savannah.—Exchange Bank plans to remodel interior of building.

La., New Orleans.—Canal-Commercial Trust and Savings Bank, W. R. Irby, Prest., will remodel building.

Okla., Oklahoma City.—S. M. Gloyd, Prest. Gloyd Lumber Co., and Wade E. Hampton purchased site at Main St. and Broadway, and plan to erect office building; details indefinite.

W. Va., Clarksburg.—West Virginia Sunday-

In writing to parties mentioned in this department, it will be of advantage to all concerned if the Manufacturers Record is mentioned.



school Association, Walter A. Snow, Gen. Secy., is considering tentative plans for erection of 10-story building; \$500,000; John L. Dickinson, Charleston, Chrmn. Bldg. Comm. Tex., Fort Worth.—E. B. Stroud will erect building to replace burned structure.

Tex., Fort Worth.—B. H. Dunn plans to rebuild National Bldg., 4th and Main Sts., noted burned.

### Churches.

Ark., Charleston.—Southern and U. S. A. Presbyterian churches plan to erect building jointly. Address The Pastor.

D. C., Washington.—Takoma Park Baptist Church plans to erect \$100,000 church and Sunday school building; stone; A. P. Clark, Jr., Archt., 816 14th St.

Fla., Tampa.—Hyde Park Methodist Church, Rev. L. M. Broyles, Pastor, 524 Platt St., plans to erect \$90,000 Sunday-school building, Cedar Ave.; 1 story; 50x50 ft.; brick; reinforced concrete floors.

Ky., Pineville.—Presbyterian Church will erect \$15,000 addition; 1 story; brick; R. F. Graf & Sons, Archts., 607 Armstein Bldg., Knoxville, Tenn.

Ky., Pineville.—Methodist Episcopal Church will erect building; 2 stories and basement; 65x50 ft.; brick, stone trim; J. W. Gaddis, Archt., 618 American Natl. Bank Bldg., Vincennes, Ind.

Mo., Kansas City.—Evangelical Lutheran Church, Rev. G. C. Rarth, Pastor, will erect \$20,000 addition to building, Neosho & Ataska Aves.; 1 story; 60x40 ft.; brick; H. J. Burgdorf, Archt., 2304 Virginia Ave.

Mo., Springfield.—First Presbyterian Church, South Jefferson, near St. Louis St., Rev. J. T. Bacon, Pastor, plans to erect church and Sunday-school building.

Mo., St. Louis.—West Park Baptist Church, Rev. P. G. Van Zandt, Pastor, will receive bids until Apr. 1 to erect \$100,000 bldg.; 100x100 ft.; brick, stone and terra-cotta; semi-fireproof; tile roof; wood and tile floors; fan-blown system heat; electric lights; Harry W. Jones, Archt., Essex Bldg., Minneapolis, Minn. (Lately noted.)

N. C., Charlotte.—Calvary Methodist Church, Rev. J. A. Sharp, Pastor, will erect \$30,000 to \$35,000 building, S. Mint St.

N. C., Spray.—First Christian Church, Rev. A. C. Babcock, Pastor, will erect building; auditorium to seat 700; Sunday-school, 200.

Okla., Broken Arrow.—First Methodist Church will erect \$70,000 building. Address the Pastor.

Okla., Jenks.—M. E. Church, Rev. Mr. Franklin, Pastor, will erect building; 1 story and basement; brick, stone trim; composition roof; Butler & Saunders, Archts., Kennedy Bldg., Tulsa.

Tenn., Rossville.—M. E. Church South, Rev. J. L. Griffiths, Pastor, will erect \$40,000 building.

Tex., El Paso.—First Congregational Church, 1800 E. Rio Grande St., Rev. W. H. Elfring, Pastor, will erect \$60,000 building; Spanish mission type.

Tex., Fort Worth.—Texas Christian University, Dr. E. M. Waits, Pres., will erect \$125,000 church.

Tex., Orange.—First Methodist Church will erect \$85,000 building; Frazier Brick Co., Dallas, Contr. for 3500 face brick. (Lately noted.)

Tex., Waco.—Central Presbyterian Church, W. N. Lazenby, Chrmn. Bldg. Comm., will erect brick building.

Va., Danville.—Mormon Church, T. O. Gunderson, Elder, Murray, Utah, is reported to erect building.

Va., Norfolk.—Barton Heights Baptist Church

plans to erect \$100,000 building. Address the Pastor.

Va., Norfolk.—Calvert Baptist Church will erect \$25,000 Sunday school building, Calvert and Wise Sts.; 1 story; 30x60 ft.; brick; Harvey Abrames, Archt., Arcade Bldg.

W. Va., Huntington.—Ohev Sholem Congregation, Dez C. Schonthal, Chrmn. Bldg. Comm., will erect \$150,000 to \$200,000 synagogue, 10th Ave. and 10th St.; auditorium, dining-room, social center, free dispensary, club, etc.

### City and County.

Md., Baltimore.—Library.—Enoch Pratt Free Library, Mulberry St., near Cathedral, Dr. Bernard C. Steiner, Librarian, will erect \$50,000 branch library at Govans; 30x60 ft.; Sill, Buckler & Fenhagen, Archts., 11 E. Pleasant St.

Mo., St. Louis.—Fire Station.—City will erect \$25,000 fire station, Carondelet Dist.; 2 stories; brick; fireproof; plans by owner. Address The Mayor.

Va., Lynchburg.—City Hall, Schools, etc.—City Council considering \$2,000,000 bond issue for schools, city hall, improvements to water system and street improvements. (See Schools.)

W. Va., Grafton.—Fire Station.—City Commissioners will erect fire station.

### Courthouses.

Okla., Cherokee.—Alfalfa County, H. G. Frizzell, County Clk., will receive bids until Feb. 1 to erect \$100,000 courthouse; 3 stories and basement; brick, stone and reinforced concrete; gravel roof; plans and specifications at office of County Clk. and office of Tonini & Bramblett, Archts., 301-2 Terminal Bldg., Oklahoma City. (Previously noted.)

### Dwellings.

Fla., Palm Beach.—John Seger, Jay Seger and Charles Seger, all Pittsburgh, Pa., are reported to have purchased property for erection of dwellings.

Fla., St. Petersburg.—Chas. E. Raynor will erect bungalow; plans to erect number of dwellings.

Fla., St. Petersburg.—William I. Evans of Detroit, Mich., at present at Choppin's court, St. Petersburg, and Charles Moore, Detroit, purchased 16 lots and are reported to erect residences.

Ky., Louisville.—R. C. Baldwin, C. Lee Cook Mfg. Co., S. 8th St., will erect brick veneer residence, Castlewood; 2 stories and basement; E. F. Hatchings, Archt., Columbia Bldg.

Ky., Louisville.—P. J. Gnau, 1409 S. Floyd St., will erect 2 dwellings, Dearborn Ave.; \$10,000; 2 stories and basement; 24x38 ft.; frame and brick; plans and construction by owner.

Ky., Louisville.—C. R. Mengel, 1303 E. Parkway, will erect \$15,000 addition to residence; 2 stories; frame; E. T. Hutchins, Archt., Columbia Bldg.

Ky., Louisville.—Nicholas Herclancy will erect \$6500 residence, 38th and Broadway Sts.; 2 stories and basement; 26x36 ft.; brick veneer; C. J. Stinson, Archt., Inter-Southern Bldg., Archt., builds by day work.

Ky., Middleboro.—Fred. Hart will erect \$50,000 residence; 2 stories; 95x40 ft.; frame and stucco; R. F. Graf & Sons, Archts., 607 Armstein Bldg., Knoxville, Tenn.

Ky., Mt. Sterling.—John Roberts will erect \$5000 residence; brick veneer; E. Stamler & Co., Archts., Fayette Natl. Bank Bldg., Lexington, Ky.

La., Monroe.—Ben Lieber will erect 10 dwellings on Lovers' Lane and McKinley Ave.; frame; 5 rooms.

Md., Baltimore.—Clarence E. Brickley, 5108 Midwood Ave., will erect two 2-story dwellings, Center St., nr. S. Beaumont Ave.; hollow tile; \$8000.

Md., Baltimore.—Joseph Pistorio, 2542 Harford Rd., will erect four 2-story dwellings, 3015-21 Winfield Ave.; \$10,000; brick; 22x35 ft.; slag roofs; steam heat; Geo. Wessel, Archt., 2752 Winchester St.; construction by owner. (Lately noted.)

Md., Baltimore.—Joseph Pistorio, 2542 Harford Rd., will erect four 2-story dwellings, 3015-21 Winfield Ave.; \$10,000.

Mo., Kansas City.—John H. Kelly & Son, 3946 Benton Blvd., will erect 8 dwellings, 4000 block College St.; \$28,000; frame and stucco; shingle roof; plans and construction by owner.

Miss., Meridian.—M. B. Herndon and others organized company to erect dwellings; \$2750 to \$3000 each.

Miss., Quitman.—Methodist Church will erect parsonage. Address the Pastor.

Mo., Kansas City.—Miles F. Bulger purchased lot, 51th and Oak Sts., and will erect \$20,000 residence; colonial style.

Mo., Kansas City.—Ray Minor, 306 Grand Ave., Temple Bldg., will erect \$10,000 residence, 645 Westover Rd.; 2 stories and basement; 25x38 ft.; frame and stucco shingle roof; plans and construction by owner.

Mo., Kansas City.—Jas. E. Nugent purchased lot on Crestwood Drive, Crestwood Addition, and plans to erect residence in spring.

Mo., Kansas City.—B. F. Hart, 4214 Holmes St., will erect \$6000 residence, 540 E. 56th St.; 2 stories and basement; 26x50 ft.; frame; shingle roof; plans by owner; day work.

Mo., St. Louis.—H. Reosch, 1541 S. Broadway, will erect \$17,500 residence, 700 Kingshighway, S. E.; 2 stories; 32x44 ft.; brick; E. J. Hess, Archt., 3226 Magnolia Ave.

Mo., St. Louis.—John Reitz, 3901 Greer St., will erect \$15,000 residence and garage, 7021 Lindell St.; 2 stories; 35x40 ft.; brick and stone; J. Balson, Archt., 3641 Wyoming St.; construction by owner.

N. C., Asheville.—Junius G. Adams will erect \$20,000 residence; Chas. N. Parker, Archt. (Lately noted.)

N. C., Asheville.—Junius G. Adams will erect \$30,000 residence, Biltmore Estate; hardwood floors; hot water heat; hollow fireproof tile; C. N. Parker, Archt.; bids opened about March 1. (Lately noted.)

N. C., Asheville.—B. S. Colburn, 275 Brevard Rd., West Asheville, will erect \$50,000 residence, Biltmore Estate; stucco on hollow tile; slate or composition shingle roof; oak floors; hot-water heat; hollow fireproof tile; Smith & Carrier, Archts., Asheville. (Lately noted.)

N. C., Asheville.—C. W. Byerly will erect \$6000 residence, Haywood road.

N. C., Asheville.—H. H. Cathey will erect 2 residences, Haywood road; \$12,000.

N. C., Asheville.—C. L. Ray will erect \$7000 residence, Westwood Pl.

N. C., Asheville.—John O'Neil is erecting \$5000 residence, Ann St.

N. C., Asheville.—Mrs. A. R. Burroughs plans to erect residence.

N. C., Asheville.—S. I. Forbes plans to erect residence.

N. C., Asheville.—Rev. A. E. Belk will erect \$6000 residence, Pennsylvania Ave.

N. C., Asheville.—W. S. Edwards will erect \$7000 residence, Haywood road.

N. C., Asheville.—W. G. Dean will erect \$7000 residence, Haywood road.

N. C., Asheville.—T. M. Smathers will erect \$6000 residence, Haywood road.

N. C., Asheville.—B. S. Colburn will erect \$60,000 residence; English country type; R. Sharp Smith & Carrier, Archt. (Lately noted.)

N. C., Asheville.—McKinley Pritchard will erect \$8000 residence, Pearson Drive.

N. C., Asheville.—Rufus Fitzpatrick will erect \$9000 residence, Norwood.

N. C., Asheville.—Dr. G. D. Gardner will erect \$7000 residence, French Broad Ave.

N. C., Asheville.—W. C. McConnell will erect \$25,000 residence at New Bridge.

N. C., Asheville.—J. W. Chiles will erect 2 bungalows, Kenilworth Park; \$12,000.

N. C., Asheville.—Mrs. Bertha Hall will erect \$8000 residence, Austin Ave.

N. C., Asheville.—B. H. Smith will erect \$7000 residence, Annandale St.

N. C., Asheville.—William Bryan will erect \$5000 residence, Norwood Park.

N. C., Asheville.—L. L. Merchant will erect \$6000 residence, Norwood Park.

N. C., Asheville.—Harold New will erect \$6000 bungalow, Pearson Drive.

N. C., Asheville.—J. W. M. Smith will erect \$6000 addition to residence, Fairview Rd.

N. C., Asheville.—Donahoe & Rawls will erect \$6300 residence, Norwood Park.

N. C., Asheville.—W. P. Nixon will erect \$7000 residence, Washington Rd.

N. C., Asheville.—Church of the Redeemer will erect \$6000 parish home. Address The Pastor.

N. C., Charlotte.—Camp Greene Investment Co., Miss. Julia Alexander, attorney, plans to erect 7 dwellings in connection with development of Camp Greene; John Nolen, Cambridge, Mass., landscape archt.

N. C., Gastonia.—Martha Torrence will expend \$15,000 to remodel residence on Morris St. and Airline Ave.

N. C., Gastonia.—R. Grady Rankin will erect 2-story brick-vener residence on S. York St.; tile roof; \$30,000.

N. C., Gastonia.—Ed. Adams will erect 5-room bungalow on S. York St.; \$10,000.

N. C., Gastonia.—W. W. Glenn will remodel residence; \$5000 to \$6000.

N. C., Gastonia.—F. D. Barkley will remodel and improve dwelling.

N. C., Gastonia.—W. J. Clifford will erect \$10,000 residence.

N. C., Gastonia.—J. M. Shuford will erect dwelling; \$10,000.

N. C., Gastonia.—S. A. Robinson will erect brick-vener residence on S. York St.; slate roof; \$30,000.

N. C., Gastonia.—E. H. Clement will erect residence on New Hope Rd.

N. C., Statesville.—D. J. Craig, Henkel-Craig Livestock Co., plans to erect 15 to 20 dwellings, South Statesville.

N. C., Winston-Salem.—William T. Brown plans to erect 25 to 30 residences in connection with land development.

Okla., Oklahoma City.—C. E. Frye will erect \$12,000 frame residence, 1007 W. 34th St.

Okla., Perry.—W. T. Donahoe will erect \$12,000 to \$15,000 residence to replace structure lately noted burned; brick; tile roof; fireproof; hardwood floors; hollow fireproof tile; ornamental terra-cotta; wire glass; bids opened in Feb.

S. C., Cheraw.—New Home Builders' Assn., J. Wilson Malloy, Pres., Box 89, will loan money to subscribers and stockholders to erect dwellings lately noted; \$3000 to \$15,000; frame and brick; shingle and metal roofs;

hardwood and pine floors; J. T. Duffy and J. F. McBride, Archts. (See Machinery Wanted—Building Material; Brick; Roofing; Lumber; Floors.)

S. C., Greenville.—J. L. Coggins will erect \$5500 residence, Memminger St.; 2 stories.

Tenn., Chattanooga.—Geo. S. Elder, 13th and Lucas Sts., St. Louis, will erect residence, Raccoon Mountain, nr. Chattanooga; 2 stories; 82x94 ft.; stone; J. W. Leigh, Archt., Odd Fellows' Bldg., St. Louis.

Tex., Dallas.—Haynes & Thompson will erect six 4-room dwellings, 1060 block Dodd St.; \$54,000.

Tex., Dallas.—Fred. Holdworth will erect \$7500 cottage, 5803 Prospect St.; 7 rooms; brick.

Tenn., Memphis.—Tony Vermore will expend \$5000 to improve 4 dwellings, 111-13-15-90 Laurel Ave.

Tenn., Memphis.—J. C. Jones will erect two 6-room brick-vener bungalows, 411-15 N. Claybrook St.; \$8750; hot-air heat.

Tex., Longview.—J. E. Stevens will erect residence to replace structure lately noted burned; 38x46 ft.; brick; red cedar shingle roof; edge-grain pine and concrete floors; electric lights; metal ceilings; plaster board; interior tile; plans and construction by owner.

Tex., San Antonio.—R. A. Richey will erect eight 4-room dwellings, Navidad St.; \$8900.

Tex., San Antonio.—S. H. Crutcher will erect \$5000 dwelling, Queen Anne St.; 5 rooms.

Tex., San Antonio.—F. M. Coleman, 601 Brady Bldg., will erect \$12,500 residence to replace structure lately noted burned; 2 stories; 11 rooms; frame and stucco; metal roof; hardwood and rift pine floors; hot-air or steam heat; plaster board; interior tile; J. Clyde Williams, Archt.; bids opened about Feb. 1.

Va., Cape Charles.—Mrs. Ada Hembrick will erect \$15,000 residence; 1½ stories; 28x47 ft.; brick; H. Roberts Diehl, Archt., New Monroe Bldg., Norfolk.

Va., Graham.—Mary Ritter will erect residence, Highland Ave.

Va., Portsmouth.—H. A. Hall will erect \$8000 residence, Washington Dist.

W. Va., Charleston.—C. A. Sullivan will erect 2-story residence, Quarrier St., between Elizabeth and Greenbrier Sts.; 6 rooms; brick and tile.

W. Va., Charleston.—Nellie E. Gilchrist will erect \$5000 residence, Jackson St., between Beauregard and Ruffner Sts.; 2 stories; 6 rooms; frame.

W. Va., Divesville.—Fairmont & Cleveland Coal Co. will erect 25 miners' dwellings at the Parker Run mine.

W. Va., Wheeling.—Geo. H. Dieringer, McLain Bldg., is preparing plans for 4 dwellings; \$50,000; 40x60 ft.; 1½ stories; frame brick and stucco; composition shingle and slate roof; yellow pine and hardwood floors; hot-air heat; hollow fireproof tile; plaster board; interior tile; owner and architect purchase material. (Lately noted.)

### Government and State.

Mo., Springfield.—Postoffice.—Treasury Dept., Wm. N. Collier, Supt. of Construction, Washington, D. C., will erect addition to postoffice; loading vestibules; 900 sq. ft. floor space; enclosed with glass; concrete floors; O. C. Mitchell, Postmaster.

Tex., Austin.—Custodial Building.—State Board of Control will receive bids until Feb. 1 for construction and equipment of custodial building for State Farm Colony for Feeble-Minded; plans and specifications at office of H. F. Kuehne, Archt., 826 Littlefield Bldg.

W. Va., Huntington.—Orphanage.—State Board of Control, Jas. S. Lakin, member, plans to rebuild colored orphans' home.

### Hospitals, Sanitariums, Etc.

Ark., Fort Smith.—Cooper Clinic Realty Corp., Aubrey C. Belcher, Secy., will erect \$40,000 surgical and medical clinic; irregular dimensions, 32x140x58 ft.; with 32 ft. open court in front; 2 stories and basement; velvet brick; tile roof; tile, concrete and hardwood floors; gas heat; electric and gas lights; ornamental terra-cotta; interior tile; wire glass; ventilators; Haralson & Nelson, Archts.; work to begin about March 1. (Lately noted.)

N. C., Biltmore.—Clarence Barker Memorial Hospital will erect \$250,000 building to replace burned structure; W. H. Lord, Archt., Asheville.

Tenn., Knoxville.—City, E. W. Neal, Mayor, is considering constructing overpass and corridor to connect Knoxville General Hospital and Lincoln Memorial Hospital buildings; cost about \$14,000.

Tex., Childress.—Childress County, H. J. Hathaway, County Judge, will erect \$2500 hospital.

Va., Catawba.—Virginia State Health Commission, care of Dr. Ennion G. Williams, 119 Capitol St., Richmond, contemplates erecting 2-story addition to State Sanitarium; Chas. M. Robinson, Archt., Times Dispatch Bldg., Richmond.

W. Va., Charleston.—Dist. No. 17, United Mine Worker of America, Fred. Mooney, Dist. Secy., will erect \$250,000 hospital for coal miners; brick; fireproof; Mills & Mills, Archts., 67 E. Long St., Columbus, O. (Previously noted.)

### Hotels.

Fla., Crooked Lake.—H. W. Bennett, 35 Wall St., New York, and others will erect \$20,000 fireproof hotel. (See Miscellaneous Structures.)

Fla., St. Petersburg.—Ben Brown purchased through Fuller Realty Agency property on Boca Ceiga Bay, and is reported to erect \$225,000 hotel; tentative plans provide 3 stories; also number of cottages.

Ky., Pikeville.—James Hatcher, Big Shoal, Ky., will erect \$50,000 hotel; 2 to 5 stories and basement; brick and stone; Richard M. Bates, Archt., 1118 First Natl. Bank Bldg., Huntington, W. Va.

Mo., Poplar Bluff.—Van Noy Interstate Hotel Co. plans to erect \$150,000 hotel to replace structure lately noted burned.

Okla., Bristow.—Albert Brans, Blackwell, Okla., is interested in erection of \$150,000 hotel.

N. C., Salisbury.—Empire Hotel, Cabell Young, Mgr., will expend \$25,000 for improvements. (Lately noted.)

### Miscellaneous.

Fla., Crooked Lake—Resort.—H. W. Bennett, 35 Wall St., New York, and others, purchased 4324-acre site near Crooked Lake and will develop for resort; erect \$200,000 fireproof hotel, etc.

Fla., West Palm Beach.—Pavilion.—J. H. Hennessey will erect amusement pavilion; 60x115 ft.; dancing floor, 50x100 ft.; stage; \$25,000.

Ga., Columbus.—Cafe.—Jas. A. Lewis will expend \$7500 to erect 1-story addition and remodel Royal Cafe, 1230 Broad St.

Ky., Pineville.—Clubhouse.—Pineville Athletic Club, R. E. Samuels, Pres., will erect clubhouse; 1 story; 110x80 ft.; frame; \$10,000.

La., New Orleans.—Community-house.—First Street Methodist Episcopal Church,

In writing to parties mentioned in this department, it will be of advantage to all concerned if the Manufacturers Record is mentioned.

Rev. T. F. Robinson, Pastor, will erect community-house; \$8000.

Md., Baltimore.—Pavilions, etc.—National Stadium, Inc., Calvert Bldg.; Harry L. Latz, Edw. L. Bader and B. Geo. Ulizio, incorporators; erect pavilions, clubhouses; etc.

Mo., Kansas City.—Barn.—City Ice & Storage Co., 21st and Campbell Sts., will erect barn, 6th and Oak Sts., 1 story and basement; 140x140 ft.; brick; stone trim; Geo. Carmen, Architect, 1332 Grand Ave.

Mo., Sedalia.—Pavilion.—Missouri State Fair Assn., E. D. Bylander, Secy., will erect swine pavilion; 1 story; 300x300 ft.; 700 stalls; steel, concrete and brick; \$200,000; Holcombe Engineering Co., Archt., Tulsa, Okla.

S. C., Greenville.—Fair.—O. P. Mills, Chrmn. Committee promoting organization of Greenville County Fair Assn.; \$15,000 capital; considering site at Verner Springs; plans race-track, grandstand, etc.

Va., Clarksburg.—Auditorium.—Louis A. Carr, 22 Union Bank Bldg., will erect \$22,000 building for public auditorium, dancing, basketball, etc.; 90x100 ft.; frame; prepared roofing; hardwood floors; hot-air heat, \$6000; electric lights; Holmboe & Pogue, Archts. Address owner. (Lately noted.)

### Railway Stations, Sheds, Etc.

Ala., Sheffield.—Southern R. R., J. S. Leonard, Ch. Engr. M. W. & S Lines East, Charlotte, N. C., will construct passenger sheds.

La., Sarpy.—Yazoo & Mississippi Valley R. R., Frank R. Judd, Engr. of Bldgs., Chicago, will erect \$10,000 passenger and freight station; 24x115 ft.; frame; asphalt shingle roof; wood floors; stoves; electric lights; work by company forces; all material purchased.

Mo., Macon.—Wabash R. R., A. O. Cunningham, Ch. Engr., St. Louis, will erect depot; \$31,000.

Tex., McAllen.—St. Louis, Brownsville & Mexico R. R., C. S. Kirkpatrick, Ch. Engr., Houston, will erect brick freight depot; 35x160 ft.; also reconstruct freight yards; \$75,000 to \$100,000.

### Schools.

Ala., Pisgah.—Pisgah Dist. School Trustees will rebuild structure lately noted burned.

D. C., Washington.—Howard University, Dr. Emmett J. Scott, Secy.-Treas., will erect home economics building; brick, steel and reinforced concrete; W. A. Hazel, Archt., care owner. (Previously noted.)

D. C., Washington.—Church of Holy Comforter, Rev. C. E. Wheeler, Pastor, will erect \$250,000 school at 15th and E. Capitol Sts. S. E.; 120x146 ft.; 3 stories and basement; fireproof; slate and slag roof; composition floors; steam water heat; electric lights; electric elevator; bids opened Jan. 10; Milburn, Heister & Co., Archts., Union Savings Bank Bldg.; contractors estimating; H. D. Watts, Riggs Bldg.; R. P. Whitty & Co., Union Trust Bldg.; W. P. Lipscomb & Co., 1405 F St. N. W.; C. J. Cassidy Co., Southern Bldg.; Frank L. Wagner, 1413 H St. N. W.; Boyle-Robertson Construction Co., Evans Bldg.; Waller Construction Co. and S. H. Harris, all Washington. (Lately noted.)

Fla., Eau Gallie.—Special Subtax School Dist. No. 3 voted \$40,000 bonds to erect school. Address County Superintendent of Public Instruction, Titusville. (Lately noted.)

Fla., Lake City.—School Board will receive bids at office of Dr. T. H. Bates, Prest. City Council, until Feb. 10 for construction and heating high school; drawings and specifications at offices Edwards & Sayward, Archts., 609 Chamber of Commerce Bldg., Atlanta,

Ga.; Dr. T. H. Bates, Lake City, and Builders' Exchange, Atlanta.

Ga., Dublin.—Laurens County, Z. Whitehurst, Supt. of Schools, is considering election on \$250,000 bonds to erect 15 to 20 rural schools.

Ky., Lexington.—University of Kentucky, Dr. Frank L. McVey, Prest., will receive bids until Feb. 1 (extended date) to erect \$139,000 dormitory; 41.8x118 ft.; 4 stories and basement; brick and hollow fireproof tile; interior tile; slate roof; concrete, tile and yellow pine floors; metal doors; steel sash and trim; vapor heat, \$4000; city lights; trunk elevator; Coolidge & Shattuck, Archts., Ames Bldg., Boston, Mass. Address Dr. McVey. (Lately noted.)

Ky., Pineville.—Board of Education will erect gymnasium; 110x85 ft.; concrete foundation; probably frame; hardwood floors; city lights; architect and contractor not chosen (address R. C. Johnson); bids opened not later than Mar. 1. Address proposals to R. H. Shipp, Supt. (Lately noted.)

La., Monroe.—City is considering \$400,000 bond issue for 3 schools. Address The Mayor.

Okla., Shawnee.—Oklahoma Baptist University, J. A. Tolman, Prest., will erect \$60,000 dormitory.

Md., Greensboro.—Caroline County School Board, E. H. Noble, Supt., Denton, will erect \$50,000 school; 2 stories and basement; 12 classrooms; brick; wood floors; slate roof; steam heat; gas and electric lights; bids opened in about 8 weeks; Henry P. Hopkins, Archt., 347 N. Charles St., Baltimore. (Previously noted.)

Miss., Laurel.—City, G. L. Lightsey, Clk., voted \$100,000 bonds to erect school. (Lately noted.)

Mo., Green Ridge.—Board of Education, Consolidated School Dist. No. 4, E. E. Bagby, Secy., will erect \$40,000 school; 2 stories and basement; 53x73 ft.; brick; stone trim; composition roof; W. F. Schrage, Archt., 43 E. 32d St., Kansas City, Mo.

Mo., Kirkwood.—Board of Education, W. F. Knowlton, Prest., will erect \$225,000 grade school; 2 to 3 stories; fireproof; brick; Wm. B. Ittner, Archt., Board of Education Bldg., St. Louis. (Lately noted.)

Mo., Marston.—Board of Education, C. M. Barnes, Secy., will erect \$10,000 school; semi-fireproof; brick and hollow fireproof tile; composition or slate roof; wood floors; metal ceilings; H. G. Clymer, Archt., Wainwright Bldg., St. Louis. (Lately noted.)

S. C., Camden.—School Board will erect building to replace Camden High School, noted burned.

Tenn., Jasper.—Marion County Court voted \$200,000 bonds for schools.

Tex., Houston.—Missionary Church of the Resurrection, Englewood, plans to erect parish school.

Tex., Rio Hondo.—Rio Hondo Independent School Dist., J. W. McKinley, Secy. School Board, defeated \$75,000 bonds to erect consolidated school; brick, stucco and hollow fireproof tile; metal ceilings and roof; wood floors over concrete; rolling partitions; ventilators. (Previously noted.)

Va., Charlottesville.—Zeta Beta Tau Fraternity plans to erect \$50,000 home at University of Virginia.

Va., Lynchburg.—City School Board will erect Rivermont grammar school, Stanhope S. Johnson, Archt.; colored high and grammar school, Craighill & Cardwell, Archts.; also erect Miller Park school; City Council considering \$2,000,000 bond issue for schools, city hall, etc. (Previously noted.)

W. Va., Kingwood.—Board of Education, Carleton C. Pierce, Prest., will erect school;

2 stories and basement; semi-fireproof; brick walls; stone trim; R. M. Bates, Jr., Archt., First Natl. Bank Bldg., Huntington.

### Stores.

Ala., Deposit.—McCaleb & Burdine will rebuild stores noted burned at loss of \$10,000.

Ala., Montgomery.—C. L. Ruth & Son Jewelry Co. will remodel building on Dexter Ave.; 3 stories, basement and mezzanine; Indiana stone front.

D. C., Washington.—G. N. Ray, 1147 Connecticut Ave. N. W., is preparing plans for 7-story store and office building; brick, limestone and reinforced concrete; \$100,000.

Fla., Stuart.—Stanley Kitchin and E. A. Fuge, Stuart, and J. R. Anthony, Jacksonville, will erect \$50,000 business building; 11 store-rooms.

Ga., Atlanta.—C. A. Dahl Co., L. D. Thomson, Sec.-Treas., will improve building at 72 N. Broad St.

Ky., Owensboro.—Westerfield Furniture Co. plans to erect \$100,000 building at Main and Allen Sts.

Miss., Darhoun.—B. F. Lampton & Co. will rebuild store noted damaged by fire at loss of \$13,000.

Mo., Kansas City.—Jno. McDonnell of McDonnell Music Co., 1217 Grand Ave., will remodel ground floors of 3 apartment flats at 31st St. and Montgall Ave. for stores.

Mo., St. Louis.—P. Pollard, 3635 Spring Ave., will erect \$12,000 store and flat, 3730 Gravois Ave.; 2 stories; 30x40 ft.

N. C., Gastonia.—Craig & Wilson will construct 2 storerooms; \$50,000.

N. C., Raleigh.—W. T. Grant & Co., New York city, will remodel ground floor of Holleran Bldg. on Fayette St.; \$10,000; Seymour Rurrell, Archt., New York.

N. C., Wilmington.—Einstein Bros. will erect building.

Okla., Tulsa.—Morris Wasserman will erect \$15,000 addition to building at 3d and Main Sts.; 35-ft. frontage; 2 stories and balcony; fireproof.

Tenn., Nashville.—W. O. Palmer will expend \$14,000 to remodel brick store at 217 5th Ave. N.

Tenn., Nashville.—Hitchcock Estate will remodel store at 530 Church St.; \$5000.

Tex., Fort Worth.—J. N. Brooker, Reynolds Bldg., will erect \$10,000 building to replace structure lately noted burned; 59x100 ft.; 2 stories and basement; brick; gravel roof; wood floors; stoves; electric lights; elevator, \$800; bids opened Jan. 20.

Tex., Fort Worth.—Mrs. G. W. Hollingsworth will erect building to replace burned structure.

Tex., San Antonio.—Grover C. Cain will erect stucco store building, Davey St.; \$7000.

Tex., San Antonio.—J. E. Jarratt will erect 2-story brick building, West Commerce St.; \$10,000.

Va., Cape Charles.—W. E. Wilkins will erect \$25,000 store and apartment building; 3 stories, 35x100 ft.; brick; H. Robert Diehl, Archt., New Monroe Bldg., Norfolk.

Va., Norfolk.—Lowenberg Goodman Corp., 127 Granby St., will erect store on Granby St. between Tazewell St. and College Pl.; \$100,000; Peebles & Ferguson, Archts., Law Bldg.

Va., Virginia Beach.—Sea Pines Corp., Room 600, Seaboard Bank Bldg., will erect 6 stores and bathhouse; 1 story; 60x130 ft.; reinforced concrete; \$30,000 to \$35,000; Neff & Thompson, Archts., Seaboard Bank Bldg., Norfolk.

W. Va., Charleston.—Schwabe & May will expend \$12,000 to repair building at 210-12 Capitol St.

W. Va., Wheeling.—Bruce H. Seabright will erect \$10,000 tile building at 3706 Jacob St.

In writing to parties mentioned in this department, it will be of advantage to all concerned if the Manufacturers Record is mentioned.



### Theaters.

Mo., Springfield.—Landers' Theater Co. will rebuild theater lately noted burned.  
 Tex., Ennis.—J. M. Sayeg will erect theater on W. Knox St.

### Warehouses.

D. C., Washington.—W. S. Hoge & Co., 601 C St., S. W., will erect \$10,000 warehouse; 2 stories; 50x75 ft.; hollow tile and reinforced concrete; C. West, Archt., Homer Bldg.  
 Fla., Tampa.—R. W. Miller will erect \$20,000 brick warehouse, Morgan and Water Sts.  
 Okla., Henryetta.—Parkersburg Rig & Reel Co. will erect warehouse and office building.  
 Tex., Waxahachie. — Waxahachie Bonded

Warehouse Co. incptd.; \$10,000 capital; T. H. Harbin, J. H. Langsford, A. G. Hobson.

Va., Danville.—Liggett & Myers Tobacco Co., 213 Fifth Ave., New York is reported to erect \$150,000 warehouse; 2 stories; 100x200 ft.; reinforced concrete; Francisco & Jacobus, Archts., 511 Fifth Ave., New York.

Va., Richmond.—Old Dominion Glass Co., Lorenzo Wolford, Prest., will rebuild warehouse lately noted burned; 1 story; 79x115 ft.; frame; \$29,000.

Va., Rosslyn.—Washington Paper Stock Co., F. D. Paxton, Prest., 716 Southern Bldg., Washington, D. C. will expend \$18,000 to alter warehouse; 2 stories; 30x60 ft.; reinforced concrete; E. W. Syme, Archt., Hibbs Bldg., Washington.

W. Va., Charleston.—Nellie S. Gilchrist, P. O. Box 22, will erect \$6500 residence; 2 stories; 6 rooms; frame; composition shingle roof; oak and concrete floors; electric lights; interior tile; Arden C. Rader, Archt., and Contr., West 3d St. (Lately noted.)

### Government and State.

W. Va., Charleston.—Capitol.—State, J. J. Cornwell, Governor, W. S. Johnson, State Treasurer, Chrmn. Bldg. Comm., will erect \$60,000 frame building to replace capitol lately noted burned; David Dick, Contr.

### Miscellaneous.

Va., Richmond.—Clubhouse.—Hermitage Golf Club, Geo. Ingalls, Chrmn. Bldg. Comm., Virginia Ry. & Power Bldg., will erect \$12,000 addition to clubhouse in Lakeside; 1 story and basement; brick; R. M. Anderson & Co., Contrs., Lyric Bldg.

### Hotels.

Tenn., Erwin.—Erwin Hotel Co. is erecting \$75,000 hotel; 70x90 ft.; 3 stories and basement; concrete, brick and wood; Barrett specification and Cortwright metal shingle roof; rift pine floors; steam heat, \$7000; electric lights, \$2000; Clinton MacKenzie, Archt., 15 Broad St., New York; H. N. Helms, Contr., Erwin; all subcontracts let except electrical work, bids for which were opened but held up until Apr. 1. (Previously noted.)

Tex., Denison.—Denison Hotel Co. will erect \$200,000 hotel; 5 stories and basement; 10x125 ft.; 125 rooms; brick, concrete and hollow fireproof tile; tar and gravel roof; composition floors; interior tile; metal doors; steam heat, \$20,000; electric lights, \$10,000; electric elevator, \$6000; Eric E. Hall, Archt., 123 W. Madison St., Chicago; Munn Construction Co., Contr., Dallas. (Lately noted.)

### Railway Stations, Sheds, Etc.

Va., Alexandria.—Richmond, Fredericksburg & Potomac R. R., E. M. Hastings, Asst. Engr., Broad Street Station, Richmond; will erect signal tower; 2 stories; 16x54 ft.; \$14,500; J. D. Knight, Contr., 321 S. Ryal St., Alexandria.

### Schools.

Fla., Ocala.—State Board of Institutions, Talahassee, will erect 2-story dormitory for Florida Industrial School for Girls; T. M. Bryan, Archt., Gainesville; Geo. MacKay Co., Contr., Ocala. (Previously noted.)

Ga., Brewton.—School Board will erect \$20,000 school; brick; probably metal roof; wood floors; plaster board; Algernon Blair, Archt., Macon; Miss E. G. Holt, Contr., 314 Green St., Augusta; will sell \$30,000 bonds; address L. P. Keen, Secy.-Treas.; City of Dudley, Ga., will sell \$15,000 bonds, T. J. Gilbert, Secy. School Board; Buckhorn, Ga., will sell \$3000 bonds; H. M. Stripling, Secy. School Board, R. F. D., Dexter, Ga. (Previously noted.)

S. C., Pacolet.—Pacolet Mfg. Co. will erect public school; 3 stories; brick; tile roof; hardwood floors; steam heat; electric lights; \$150,000; Frank Collins, Archt., Spartanburg; Fiske-Carter Constr. Co., Spartanburg and Greenville. (Lately noted.)

Va., Bedford.—Randolph Macon Academy, E. Sumter Smith, Prest., will erect gymnasium to replace burned structure; 84x46 ft.; 3 stories; annex 70x40 ft.; 1 story; swimming pool and baths; brick and cement; slate roof; skylight over annex; wood, cement and tile floors; steam heat; electric lights; Heard & Chesterman, Archts., Peoples' Bank Bldg.; John P. Pettyjohn & Sons, Contrs., 212 8th St., both Lynchburg. (Lately noted.)

W. Va., Keyser.—School Board will erect

## BUILDING CONTRACTS AWARDED

### Apartment-Houses.

N. C., Charlotte.—Frank McCombs will erect \$65,000 apartment-house, near Pine and 11th Sts.; 2 stories; 12 suites; plans by owner; C. A. Mullis, Contr.

Va., Norfolk.—Frank J. Pritchard will erect \$14,000 apartment-house; 1025 Redgate Ave.; 2 suites; brick.

### Bank and Office.

Ky., Providence.—Providence Citizens Bank & Trust Co. will remodel and erect addition to building; 2 stories; F. J. Schlotter, Archt., 113½ N. 4th St., Evansville, Ind.; J. M. Reynolds, Contr., Providence.

Tex., El Paso.—State Natl. Bank, C. R. Morehead, Prest., will erect \$155,000 building, San Antonio and Oregon Sts.; 1 story and mezzanine; 48x120 ft.; concrete and steel; composition over concrete slab roof; marble, tile and concrete floors; vapor steam heat; hydraulic elevators; hollow fireproof tile; ornamental terra-cotta; interior tile; metal doors; vaults; vault lights; ventilators; steel sash and trim; Trost & Trost, Archts.; J. E. Morgan, Contr., El Paso; Remington Co., Los Angeles, Cal. Contr. for interior of building and equipment. (Lately noted.)

### Churches.

Fla., Tampa.—First Baptist Church will erect \$250,000 church and Sunday-school building, W. Lafayette and Plant Aves.; 1 story and basement; 130x150 ft.; brick and stone; Chas. M. Hart, 12 44th St., New York, and J. J. Baldwin, Anderson, S. C., Archts.; Logan Bros., Contrs., Tampa. (Lately noted.)

Miss., Natchez.—First Baptist Church, Rev. Wm. A. Borum, Pastor, will erect building on Main St.; tapestry brick; Spanish-tile roof; Bost & Moss, Contrs. (Previously noted.)

Mo., Kansas City.—Keneseth Israel Congregation will erect \$200,000 synagogue, 34th St. and Paseo Blvd.; 1 story and basement; 75x120 ft.; S. H. Kurfuss, Archt., 1202 Scarritt Bldg.; Max Morris, Contr., 3916 Charlotte St. (Lately noted.)

N. C., Spray.—First Christian Church, Smith Eggleston, Chrmn. Bldg. Comm., will erect \$40,000 building lately noted; 60x80 ft.; brick; metal roof; double elevated floors; hot-air heat; electric lights; metal ceilings; rolling partitions; plans by Rev. A. C. Babcock, Pastor; John Smith, Contr. (See Machinery Wanted—Art Glass.)

Tex., Mount Pleasant.—Methodist Church, Rev. F. N. Brewer, Pastor, will erect church and community building; \$7500; Stockton Bros., Contrs.

### Dwellings.

D. C., Washington.—S. A. Pfau will erect \$5000 residence; 2 stories; 28x26 ft.; frame;

composition roof; hardwood floors; hot-water heat, \$700; electric lights, \$200; Geo. T. Santmyers, Archt., 2806 Brentwood Rd.; A. Jeffery, Contr., 1826 Jackson St. N. E. (Lately noted.)

Fla., Tavares.—Board of Trade will erect residence; Mr. Osburn, Contr.; ultimate plans call for number of dwellings.

Ky., Fort Thomas.—J. R. Farney will erect \$18,000 residence, Rossmore Ave.; 2 stories and basement; 29x22 ft.; brick; Philip Pfeiffer, Archt., 10 E. McMillan St.; Chas. McDermott & Co., Contrs., 4th and Walnut Sts.; both Cincinnati, O.

Ky., Henderson.—J. L. Nicholson will expend \$10,000 to remodel residence; Harry E. Boyle & Co., Archts., 405 Furniture Bldg., Evansville, Ind.; Al. Griman, Contr., Henderson.

La., Monroe.—Ben Lieber will erect 10 dwellings on Lovers' Lane and McKinley Ave.; \$25,000; 5 rooms; frame; composition shingle roofs; hardwood oak floors; gas heat; S. O. Kenly, Contr. (Lately noted.)

Mo., St. Louis.—Alma Ulrich, 3413 Buncan St., will erect 10 dwellings, Dover Pl. and Kingshighway Park; \$75,000; 2 stories; 26x32 and 25x44 ft.; plans by owner; John Feedler, Contr., 5060 S. Grand Ave.

Mo., St. Louis.—W. H. Dickey, 4356 Manchester Ave., will erect \$10,000 residence; 2 stories; 28x31 ft.; brick; slate roof; hardwood floors; hot-water heat; electric lights; Edw. E. Christopher, Archt., 6025 Etzel Ave.; Aug. H. Wieldt, Contr., 6021 Etzel Ave. (Lately noted.)

Mo., St. Louis.—Wm. H. Dickey, 4356 Manchester Ave., will erect \$12,000 residence, Kingshighway and Oakland Ave.; 2 stories; 31x27 ft.; E. E. Christopher, Archt., 6025 Etzel Ave.; A. H. Wieldt, Contr., 6821 Etzel Ave.

Mo., St. Louis.—Lay Bros., 2025 E. Warne St., have contract to erect \$8000 residence, Eagle Heights; 2 stories; 25x30 ft.

W. Va., Triadelphia.—Elm Grove Coal Co., Elm Grove, will erect 50 miners' dwellings; 2 stories; 23x30 ft.; Finnegan & Amos, Archts. and Contrs., Elm Grove.

N. C., Asheville.—T. U. Greer will erect residence, Courtland Ave.; W. W. M. Smith, Contr.

N. C., Asheville.—Mr. Reed will expend \$10,000 to alter residence; C. T. McPherson, Contr.

N. C., Asheville.—Irwin Bean will erect \$5000 residence, Norwood; Howard Clayton, Contr.

Tex., Stephenville.—Brinkie Truette will erect residence; contract let.

Va., Orange.—J. G. Hempsted, 5007 Dorchester Ave., Chicago, will remodel residence, nr. Orange; 2 stories and basement; brick; Lee & Lee Archts. and Contrs., 918½ E. Main St., Richmond, Va. (Lately noted.)

In writing to parties mentioned in this department, it will be of advantage to all concerned if the Manufacturers Record is mentioned.

12-story 12-room high school; 2 stories and basement; 97x162 ft.; brick; stone trim; steel columns, girders and beams; \$225,000; Hersh & Scheller, Architects, Commerce Bldg., Altoona, Pa.; Snider Bros., reported contrs., Keyser, (Previously noted.)

### Stores.

Ala., Birmingham.—Sloss-Sheffield Steel & Iron Co. will erect \$15,000 commissary at First ave. and 32d St.; Smith Co., Contr.  
D. C., Washington.—Oppenheimer Department Store, 800 E St. N. W., will erect \$75,000 building; 50x97 ft.; steel columns and beams with wood joists; hardwood and concrete

floors; slag roof; metal ceilings and doors; plaster board; wire glass; ventilators; steam heat; electric elevators; Frank G. Pierson, Archt., 902 F St. N. W.; R. P. Whitty Co., Contr., Union Trust Bldg. (Lately noted.)

Ky., Louisville.—Geo. M. Clark, New Albany, Ind., will erect store and office building, Howard and 21st Sts.; 1 story and basement; 95x115 ft.; \$25,000; Nevin & Wischmeyer, Architects, 1317 Starks Bldg.; A. Koerner & Co., Contrs., Floyd and Burnett Sts.; both Louisville.

N. C., Asheville.—Canie N. Brown will erect \$20,000 to \$25,000 building; 50x106 ft.; 2 stories; brick and concrete; tar and gravel

roof; concrete floors; steam heat; electric lights; W. J. East, Archt.; L. L. Merchant, Contr. (Previously noted.)

Tex., Graham.—C. W. Johnson & Son will erect 2-story brick and stone business building; contract let.

### Warehouses.

Ky., Newport.—City Ice Co., Harry D. Norvell, Prest., 3210 Jefferson Ave., Cincinnati, will erect storage addition and remodel ice plant, 9th St. and Linden Ave.; Bernard T. Wisnall, Archt., 1643 Reading Rd., Cincinnati; J. J. Craig, Contr., 30 W. 9th St., Chicago.

## MACHINERY, PROPOSALS AND SUPPLIES WANTED

Alternator.—Weightman & Steigely, 21 La Salle St., Chicago, Ill.—Dealers' prices on 50 to 1000 K. V. A. 3-phase 60-cycle 440-volt alternator, direct connected to simple Corliss engine; state rating, age, condition and serial number.

Art Glass.—Rev. A. C. Babcock, Pastor First Christian Church, Spray, N. C.—Catalogs on colored and memorial window glass for church.

Bender (Angle Iron).—Houston Blow Pipe & Sheet Metal Works, F. W. Myers, Prest., Box 1422, Houston, Tex.—Angle iron bender for forming angles up to 1/4x2x2 equal leg angles; prefer rebuilt or second-hand machine.

Boilers.—See Pumps, etc.

Boiler.—W. R. Turner, Mgr. Crockett Hardwood & Pine Lumber Co., Crockett, Tex.—50 H. P. boiler.

Boilers.—Texas Supply Co., Beaumont, Tex.—All sizes of oil field and tubular boilers.

Brick.—New Home Builders' Assn., J. Wilson Malloy, Prest., Box 89, Cheraw, S. C.—Prices on brick. (See Building Material.)

Bridge Construction.—Perquimans County Commrs., Hertford, N. C.—Bids until Feb. 17 to build bridges; Carolina Engineering Co., Engr., 412 Southern Bldg., Wilmington, N. C.

Bridge Construction.—A. E. Loder, District Engr. Bureau Public Roads, U. S. Dept. Agriculture, 917 Bell Bldg., Montgomery, Ala.—Bids until Feb. 3; changed date from Dec. 16 to construct 1000 lin. ft. timber trestle and bridge and 515 lin. ft. earth fill surfaced with sand-clay.

Bridge Construction.—City, Walter H. Taylor, Third Director Public Works, Norfolk, Va.—Bids until Jan. 20 to rebuild pile and timber bridge across Tanner's Creek at eastern end 26th St.; plans, etc., on file.

Bridge Construction.—Duval County Commrs., Frank Brown, Clk., Jacksonville, Fla.—Bids until Jan. 20 to build bridge over Moore's branch of New River-Maxville road; plans, etc., with Clk.

Building Materials.—Guilford Lumber Mfg. Co., Wm. B. Mendenhall, Secy., 532 Ashe St., Greensboro, N. C.—Prices on 1,000,000 building brick, two and one; cement and building lime in carload lots; delivery Salisbury, N. C.

Brush and Garment Hanger.—John H. Goldberg, 14 Florida Ave. N. W., Washington, D. C.—To contract for mfr. of combination brush and garment hanger.

Brushes.—C. L. Cunningham, Prest. Monarch Wood Turning Corp., 30 Garrison Lane, Baltimore, Md.—Names and addresses brush makers in eastern part of United States.

Building Material.—New Home Builders' Assn., J. Wilson Malloy, Prest., Box 89,

Cheraw S. C.—Prices on brick, metal roofing, pine and poplar lumber, hardwood floors.

Building Material, etc.—Andre Descamps, Ste. Anonyme Commerciale, Pointe-a-Pitre, Guadeloupe.—Building material for construction of theater of reinforced concrete or wood and stone; interior furnishings; about 1000 chairs of three kinds; complete moving-picture outfit.

Cable (Ignition), etc.—Panama Canal, A. L. Flint, General Purchasing Officer, Washington, D. C.—Bids until Jan. 17 to furnish: Coke; ignition cable; volmeter; cable clips; rubber boots; strip rubber; horn fiber; graphite brushes and brush plates; push-buttons; oil cups; oil cans; brass washers; life preservers; fog horns; anchors; anchor lights; car locks; ring bolts; screws; locks; drawer knobs; steel tapes; cane; paper; oil board and wrought-iron pipe. Blank forms and information (Circular 1430) on application to offices of Panama Canal; Asst. Purchasing Agt. at New York, New Orleans, San Francisco; United States Engr. offices throughout country.

Cabinets (Ice Cream).—Marshall Bros., Arthur Marshall, Mgr., 613 Kentucky St., Dallas, Tex.—Carload of ice-cream cabinets.

Canner and Cooker.—Jas. L. Carbery, Union, S. C.—To contract for mfr. pressure canner and cooker; construction of sheet metal with wrought-iron or steel fittings.

Cans and Tubs (Ice Cream).—Peninsular Fruit Products Co., 2104 Nebraska Ave., Tampa, Fla.—Names and addresses on Southern mfrs. of ice-cream packing cans and tubs, also ice-cream mfg. equipment.

Cars (Dump).—Nixon-Smith Construction Co., 703 Bell Bldg., Montgomery, Ala.—Prices on ten 12-yard standard-gauge 2-way gravel dump cars; delivery De Ridder, La.

Castings, etc.—D. Souter, 647 St. Mary St., Baton Rouge, La.—To correspond with mfrs. of malleable steel and gray iron castings, pipe flanges, etc.

Coils (Copper).—Newtown Giant Incubator Corp., Harrisonburg, Va.—Names of mfrs. of copper coils for raw-water heaters without heater jacket.

Compressors.—See Pumps, etc.

Compressor.—Warner Moore & Co., Richmond, Va.—Prices on steam-driven air compressor, 300 cu. ft. capacity; state name, make, age and condition.

Cooperage Machinery.—G. W. Morningstar Cooperage Co., Ehrhardt, S. C.—Set of slack bbl. heading mch.; immediate shipment.

Crane (Locomotive).—W. C. Briddell Co., Inc., Continental Trust Bldg., Baltimore, Md. 20-ton 8-wheel locomotive crane, 42 to 46-ft. boom; Browning preferred.

Crusher.—City, J. H. Dingle, City Engr., Charleston, S. C.—Bids until Jan. 18 for portable or semi-portable rock crusher, suitable for crushing cobblestones and granite paving blocks.

Culverts.—Vance County Commrs., C. V. Singleton, Chmn., Henderson, N. C.—Prices on car of corrugated metal culverts, size from 8 to 24 in.

Derrick.—W. C. Briddell Co., Inc., Continental Trust Bldg., Baltimore, Md.—Steel stiff-leg derrick with electric hoist and swing, 80-ft. boom, 15 to 20-ton capacity.

Dragline Machine.—Gulf Machinery & Investment Co., New Orleans, La.—New or second-hand dragline machine with 2-yard bucket, 60-ft. boom; state condition, location, age, make, shop specifications, factory number, catalog cuts, estimated shipping weight, prices f. o. b., freight rates to New Orleans, terms, etc.

Drainage.—Little Black Drainage Dist., J. P. Campbell, Secy., Doniphan, Mo.—Bids until Jan. 18 for plans, surveys, etc., for draining 28,000 acres.

Drainage System.—Clear Creek Drainage Dist., Bolivar County Commrs., Cleveland, Miss.—Bids until Mar. 1 to construct drainage system to drain 23,500 acres; W. W. Boone, Civil Engr.

Drainage System.—Central Drainage Dist., Bolivar County Commrs., Cleveland, Miss.—Bids until Mar. 1 to construct drainage system to drain 35,000 acres; W. W. Boone, Civil Engr.

Dredging.—United States Engr. Office, Norfolk, Va.—Bids until Feb. 7 to dredge 40-ft. channel in Norfolk harbor.

Elevator Chain.—G. W. Morningstar Cooperage Co., Ehrhardt, S. C.—Elevator chain; immediate shipment.

Flooring.—New Home Builders' Assn., J. Wilson Malloy, Prest., Box 89, Cheraw, S. C. Prices on poplar hardwood flooring. (See Building Material.)

Engine.—W. R. Turner, Mgr. Crockett Hardwood & Pine Lumber Co., Crockett, Tex.—50 H. P. engine.

Engines, etc.—Fire Dept., P. W. Wilkinson, Secy., Baltimore, Md.—Bids until Jan. 19 to furnish 3 gasoline-driven piston pumping engines, hook and ladder truck tractor, 3 roadsters and hose.

Films, etc.—Andre Descamps, Ste. Anonyme Commerciale, Pointe-a-Pitre, Guadeloupe. To represent in the Antilles film companies, films with French translations; also hardware, food products, etc.

Graders.—(See Road Machinery.)

General Merchandise.—Sapru & Sukhia, Manilal Mansion, Lamington Rd., Bombay, India.—To represent mfrs. of every kind of goods and products; quotations for delivery c. i. f. Bombay, India.

Generators.—Weightman & Steigely, 21 N. La Salle St., Chicago, Ill.—Dealers' prices on 250 to 300 K. W. 250-volt D. C. generators, direct connected to simple engines (not compound), either 4-valve, piston valve or uniflow type; state manufacturers' name,

rating, age, condition, shop number and floor space occupied.

**Harness.**—(See Road Machinery.)

**Holst.**—W. D. Reed, Secy.-Treas. Fort Grand Coal Co., 17 American Bldg., Fairmont, W. Va.—Holst, etc.

**Hose.**—See Engines, etc.

**Ice Plant.**—Marshall Bros., Arthur Marshall, Mgr., 613 Kentucky St., Dallas, Tex.—10-ton ice-making machine with 20 H. P., 10 H. P. and 6 H. P. belt-driven motors.

**Levee Construction.**—Miller Levee Dist. No. 2, Memphis, Tenn.—Bids until Jan. 8 to construct 164,000 cu. yds. levee, 9500 cu. yds. ditch in section 1; 375,000 cu. yds. levee enlargement in section 2; C. S. Christian, Ch. Engr., Room 424 State National Bank Bldg., Texarkana, Ark.

**Locomotive.**—Nixon-Smith Construction Co., 703 Bell Bldg., Montgomery, Ala.—Prices on 32 to 35-ton Mogul locomotive, wheel centers ranging from 32 to 40 in., suitable for handling 12-yard dump cars over track of 30 to 35-lb. rails; delivery De Ridder, La.

**Looms.**—J. D. Kennedy, Box 635, Jackson, Miss.—Several second-hand 40-in. plain looms.

**Lumber.**—New Home Builders' Assn., J. Wilson Malloy, Prest., Box 89, Cheraw, S. C. Prices on pine and poplar lumber. (See Building Material.)

**Map Rollers and Hangers.**—Department of the Interior, S. G. Hopkins, Asst. Secy., Washington, D. C.—Bids until Feb. 3 to furnish about 5425 sets rollers and hangers used for mounting United States General Land Office maps.

**Metal-working Machinery.**—Brosvik Mfg. Co., 316 St. Paul St., Baltimore, Md.—Mchy. for mfrs. automobile specialties and household novelties.

**Molds.**—O. D. Souther, 647 St. Mary St., Baton Rouge, La.—To correspond with mfrs. of special mchy. to make wire shapes.

**Packing Plant.**—George B. West, Secy. Chamber of Commerce, Washington, N. C.—Data and prices on packing plant, annual capacity 2500 hogs.

**Paving.**—Town, H. J. Riley, Clk. and Treas., Bennettsville, S. C.—Bids until Feb. 1 to construct 70,000 sq. yds. pavement; 40,000 lin. ft. combination curb and gutter; 12,500 cu. yds. excavation; storm sewerage; sheet asphalt, asphaltic concrete pavement on cement concrete base; specifications from Town Clerk and Treas. and Harwood Beebe, Engr., Spartanburg, S. C.

**Paving.**—City, J. C. Flanagan, Secy.-Treas., Shreveport, La.—Bids until Jan. 11 to pave Lee (View), Common and Caddo Sts.; asphaltic concrete; plans, etc., with City Engr.

**Paving.**—Perquimans County Commrs., Ierford, N. C.—Bids until Feb. 17 to construct hard-surfaced highways; 70,000 yards hard-surface paving; Carolina Engineering Co., Engr., 412 Southern Bldg., Wilmington, N. C.

**Paving.**—City, G. B. Shepard, Director of Finance, St. Petersburg, Fla.—Bids until Jan. 15 to construct 800 lin. ft. 6-ft. hexagonal tile walk along north side Yacht basin.

**Paving.**—City, E. A. Beck, City Mgr., Lynchburg, Va.—Bids until Jan. 29 to improve Church St. between 5th and 13th Sts.; 10,000 sq. yds. reinforced concrete; 12,000 sq. yds. brick; 9000 sq. yds. sheet asphalt; 9000 sq. yds. brick gutter; plans, etc., with engineer.

**Pipe.**—John G. Duncan Co., 101 E. Jackson St., Knoxville, Tenn.—Lowest prices on 2500 to 3000 ft. 1, 1½ and 2-in. pipe; good condition.

**Pipe.**—Lewter F. Hobbs, Box 484, Norfolk, Va.—2600 ft. of 6-in. and 2600 ft. of 4-in. second-hand riveted pipe with bolted joints.

**Pipe.**—Lewter F. Hobbs, 115 E. 12th St., Norfolk, Va.—500 ft. of 2-in. pipe.

**Pipe.**—Texas Supply Co., Beaumont, Tex.—Iron pipe from ¾ in. to 1½ in.

**Pipe (Water).**—Nixon-Smith Construction Co., 703 Bell Bldg., Montgomery, Ala.—Prices on 1500 ft. of 6-in. water pipe to use in construction with gravel washer; delivery De Ridder, La.

**Planer.**—W. R. Turner, Mgr. Crockett Hardwood & Pine Lumber Co., Crockett, Tex.—Planer.

**Planer.**—G. K. Evans & Co., Pachuta, Miss.—Second-hand planer for dressing and matching yellow pine lumber; state condition, price, etc.

**Power Plant.**—City, Mayor Wm. F. Broening, Prest. Board of Awards, Baltimore, Md. Bids until Jan. 19 to alter and construct additions to power plant at City Jail; plans, etc., with J. F. Crowther, Inspector of Buildings.

**Pump.**—Nixon-Smith Construction Co., 703 Bell Bldg., Montgomery, Ala.—Prices on No. 6 two-stage centrifugal water pump, belt driven; delivery De Ridder, La.

**Pumps, etc.**—Martin Construction & Engineering Co., McClelland Bldg., Lexington, Ky.—Pumps, air compressors and boilers.

**Rails.**—Enterprise Equipment Co., Norfolk, Va.—10 mi. 30-lb. section relaying rails.

**Rails.**—H. W. Stewart, 127 N. Dearborn St., Chicago, Ill.—2000 tons first-class 60-lb. rails with angle bars and 500 tons of new 16-lb. rails; delivery Virginia.

**Rails.**—Lewter F. Hobbs, 115 E. 12th St., Norfolk, Va.—500 ft. of 16-lb. relaying rails.

**Retinning Machinery.**—H. C. Price, Wesson, Miss.—To correspond with mfrs. of mchy. for retinning and repairing milk cans.

**Rig.**—R. P. Johnson, Wytheville, Va.—Second-hand single spur friction drive log haul-up rig with about 6x8 in. drum.

**Rings (Finger).**—Lena Hunt, Williamsburg, Ky.—Names of mfrs. finger rings.

**Ring Roll Mill.**—North Georgia Marble Products Co., Whitestone, Ga.—New or second-hand No. 1 Sturtevant ring roll mill.

**Road Construction.**—Colorado County Court, John C. Hoyo, County Judge, Columbus, Tex.—Bids in Feb. for constructing 4 mi. gravel highway between Glidden and Borden; \$45,000 available; Ben. H. Faber, Engr., Eagle Lake, Tex.

**Road Construction.**—Guadalupe County Commrs. J. B. Williams, County Judge, Seguin, Tex.—Bids until Jan. 20 to construct 18.5 mi. gravel surfaced road on State Highway No. 3; \$75,000 Federal Aid; Hess & Skinner, County Engrs., S. W. Life Bldg., Dallas, Tex.

**Road Construction.**—Kaufman County, W. P. Williams, County Judge, Kaufman, Tex.—Bids until Feb. 3 to construct 14.86 mi. gravel surfaced road on State Highway No. 40 through Kemp, Mebank Precinct No. 7; Bartlett & Ranney, County Engrs.

**Road Construction.**—Titus County Commrs., D. M. Cook, County Judge, Mt. Pleasant, Tex.—Bids until Jan. 25 to construct 20.17 mi. gravel surfaced road on Highway No. 35 from 3.6 mi. southeast of Mt. Pleasant to Talco; Wilder & O'Neal, County Engrs.

**Road Construction.**—Overton County Commissioners, A. C. Copeland, Jr., Clerk, Livingston, Tenn.—Bids until Jan. 22 to construct pike road; cost \$450,000; W. H. Peeble, Supt.

**Road Construction.**—State Highway Dept.,

Frankfort, Ky.—Will invite bids in spring on 22 mi. Federal-aid highway, known as Ohio River Route; \$554,000 available.

**Road Construction.**—Burnet County Commissioners, C. A. Baker in charge, Burnet, Tex.—Will invite bids on 10 mi. road; \$5500 available; Hess & Skinner, Engrs., Dallas, Texas.

**Road Construction.**—Kaufman County, W. P. Williams, County Judge, Kaufman, Tex.—Bids until Feb. 3 to improve 1.621 mi. graveled Federal-aid road on State Highway No. 15 with bituminous topping; also 10.54 mi. road in Precinct No. 1 and 14.86 mi. in Precinct No. 7, graveled Federal-aid road on State Highway No. 40; plans, etc., with Bartlett & Ranney, County Engrs., Kaufman, and 612 Calcasieu Bldg., San Antonio, Tex., and State Highway Dept., State Office Bldg., Austin, Tex.

**Road Construction.**—West Baton Rouge Parish Police Jury, L. T. Bernard, Secy., Port Allen, La.—Bids until Jan. 26 to construct 14 mi. washed grave roads; information on file.

**Road Machinery.**—John C. Hoyo, County Judge, Colorado County, Columbus, Tex.—Prices on road graders, harness, scrapers, shovels and other implements for road work.

**Roller, etc.**—Lewter F. Hobbs, Box 484, Norfolk, Va.—Second-hand 8-ton tandem steam road roller and 1200-yd. asphalt plant.

**Roofing.**—G. W. Morningstar Cooperage Co., Ehrhardt, S. C.—Corrugated roofing; immediate shipment.

**Roofing.**—New Home Builders' Assn., J. Wilson Malloy, Prest., Box 89, Cheraw, S. C. Prices on metal roofing. (See Building Material.)

**Sawmill.**—W. R. Turner, Mgr. Crockett Hardwood & Pine Lumber Co., Crockett, Tex.—Sawmill.

**Scrapers.**—(See Road Machinery.)

**Sewer.**—District Commrs., 509 District Bldg., Washington, D. C.—Bids until Jan. 13; construct 700 lin. ft. 9-in. by 6-ft. 9-in. concrete sewers; plans, etc., from Ch. Clerk Engineering Dept., 427 District Bldg.

**Sewer Construction.**—John S. Butler, Town Clerk of St. Pauls, N. C.—Bids until Feb. 3 to construct sewer and water-works system; Carolina Engineering Co., Engr., 412 Southern Bldg., Wilmington, N. C.

**Shafting.**—G. W. Morningstar Cooperage Co., Ehrhardt, S. C.—Shafting, pulleys and belting; immediate shipment.

**Shovel.**—John G. Duncan Co., 101 E. Jackson St., N. E. Cor. Central St., Knoxville, Tenn.—Second-hand steam shovel, caterpillar preferred, good working condition; lowest dealers' prices and location at earliest moment possible; quote on ¾, 1-yd. or larger dipper.

**Shovels.**—(See Road Machinery.)

**Standpipe.**—Roby Water & Light Co., L. C. Eastland, Mgr.-Engr., Box 166, Roby, Tex.—Second-hand 100,000-gal. capacity standpipe.

**Steel Rods.**—Tennessee Silo & Tank Co., J. J. Graham, Mgr., 120 Humes St., Knoxville, Tenn.—9/16, ¾ and 1-in. steel rods.

**Switchboard.**—Roby Water & Light Co., L. C. Eastland, Mgr.-Engr., Box 166, Roby, Tex. 2300-volt A. C. 3-phase 60-cycle switchboard, complete, with all instruments and watt-hour meter.

**Tank.**—Roby Water & Light Co., L. C. Eastland, Mgr.-Engr., Box 166, Roby, Tex.—30,000 to 60,000-gal. capacity wooden-stave tank.

**Textile Machinery.**—Houston-Guadalupe Water Power Co., 621 Binz Bldg., Houston, Tex.—Data and prices on mchy. to mfr. cotton twine and rope.

In writing to parties mentioned in this department, it will be of advantage to all concerned if the Manufacturers Record is mentioned.



**Tractors.**—See Engines, etc.

**Transmission Line.**—Board Public Works, J. B. Mendenhall, Chrmn., Greer, S. C.—Bids until Jan. 18 to build 14 mi. electric transmission line from Greer to Fairforest; line to be No. 2 aluminum or No. 4 copper, wood poles, steel crossarms, pin type insulators of 44,000 volts; bids also received for substation for 3-unit 333 V. A. transformers, 44,000 to 2200 volts, with steel bents and all necessary equipment except meters; specifications on file with Chrmn. at Greer and W. N. Willis, Conslt. Engr., Cleveland Bldg., Spartanburg, S. C.

**Tubes (Boiler).**—Atlantic Terra-Cotta Co., Perth Amboy, N. J.—Addresses Southern mfrs. of boiler tubes.

**Turbo-Generators.**—Weightman & Steigely, 21 N. La Salle St., Chicago, Ill.—Dealers' prices on 1000 K. V. A. 3-phase 60-cycle 3600 R. P. M. 440 or 2300-volt condensing 140-lb. steam turbo-generator; horizontal, with or without condensers; state manufacturer's name, rating, age, condition and serial numbers and floor space occupied; immediate delivery.

**Water-works.**—John S. Butler, Town Clerk of St. Pauls, N. C.—Bids until Feb. 3 to construct water-works and sewer system; Carolina Engineering Co., Engr., 412 Southern Bldg., Wilmington, N. C.

**Wire.**—Tennessee Silo & Tank Co., J. J. Graham, Mgr., 210 Humes St., Knoxville, Tenn.—Galvanized wire for guying purposes, lugs, nuts, etc.

**Woodworking Machinery.**—Hunt & Holland, Meherrin, Va.—Sanding equipment, also spoke and handle mchy.

**Woodworking Machinery.**—LeRoy B. Allen, Hope, Ark.—Prices and data on mchy. to mfr. wooden cleats and other small articles.

## Railroad Construction

Miss., Laurel. — County Commrs. of Jones County propose to build a railroad from Ellisville to Buffalo Hill to haul road material from a gravel pit.

Okla., Forgan. — Track-laying is reported begun on the Kansas & Oklahoma R. R. from Forgan, Okla., to Liberal, Kans. Walter Byers and others interested.

Tenn., New River.—New River & Round Mountain Railway is chartered to build a railroad from a connection with the Cincinnati, New Orleans & Texas Pacific Ry. at or near New River Station, in Scott County southerly up Brimstone Creek to Oliver Springs, in Anderson county, a distance of about 25 miles. Incorporators: John Tooney, E. G. Foster, W. H. Potter, W. H. Buttrair and Fred. Toomey.

Tex., Greenville.—Texas Midland Railroad has applied to the Interstate Commerce Commission for authority to build a line from Greenville to Commerce, Tex., 14 mi., to make a connection. E. H. R. Green is Prest. at Terrell, Tex.

Tex., McAllen. — St. Louis, Brownsville & Mexico Rwy. Co., it is reported, will reconstruct the freight yards at McAllen. C. S. Kirkpatrick is Ch. Engr. at Houston, Tex.

W. Va., Albright.—Cheat River & Muddy Creek Railroad is chartered to build line from Albright to Englehart Mills, all in Preston County, several miles. Incorporators: J. C. Gibson, J. W. Flynn, R. S. Larue, J. V. Gibson and H. G. Larue, all of Kingwood, W. Va.

W. Va., Fairmont.—Fairmont Industrial Railway Co. will meet Jan. 15 at 402 Watson Bldg. to organize for building a line from

the Baltimore & Ohio Railroad at James Mine Siding, near Kingmont, through the Pleasant Valley section. Stockholders include C. D. Robinson, O. S. McKinney, F. D. Fenhagen, H. L. Heintzelman and others.

W. Va., Lenore.—Construction is reported being pushed on the Norfolk & Western Railway's extension from Lenore 18 mi. to coal lands on Rockhouse Fork of Pigeon Creek, notwithstanding winter weather, and it is to be completed by early summer, according to expectations. Walton Construction Co. and Harry M. Waugh have the contracts, each about 9 mi.

W. Va., Parkersburg.—North & South Rail-

road Co. is chartered to build from Parkersburg to Charleston, 70 miles, through Wood, Wirt, Jackson and Kanawha counties, touching Rockport, Ripley and Kenney. Construction probably not for another year. Prest., Judge Reese Blizard; V.-P., Dr. W. J. Davidson; V.-P. and Right-of-Way Agent, Kenner B. Stephenson; Treas., T. G. Reitz; Secy., C. M. Hanna, all of Parkersburg.

## Street Railways.

Tex., El Paso.—El Paso Electric Railway Co. proposes to build double track and connections at an estimated cost of about \$120,000. A. R. Warren is Mgr.

## INDUSTRIAL NEWS OF INTEREST

Items of news about industrial, railroad or financial interests, building operations, construction work, municipal improvements, or the sale of machinery or the letting of contracts in the South or Southwest, are invited from our readers whether they are advertisers or subscribers or not. We invite information of this character from readers in the North and West about their Southern business operations, as well as from Southern readers. News of value will be published just as readily when from non-advertisers as from advertisers.

### Official Changes.

B. F. Avery & Sons, Inc., manufacturers of agricultural implements, Louisville, Ky., announce that Charles F. Huhlein, formerly president, has been elected chairman of the board of directors and that he will continue to be the chief executive, having supervision and control of the financial departments. William Black, formerly vice-president, has been elected president, with special supervision of the manufacturing, purchasing and sales departments. Henry L. Taylor has been elected vice-president to succeed Mr. Black and will have charge of the sales departments, including branches; he is also trade manager. All of these gentlemen have been with the company for a number of years. The appointment of Charles W. Birnstiel, formerly works superintendent, as purchasing agent to succeed John R. Roeker, retired on account of declining health, is also announced.

### Two New Officers Chosen.

Frank D. Fagan has been elected vice-president and general manager and Edward M. Cutting assistant to the general manager of the Edison Storage Battery Co. of Orange, N. J. Mr. Fagan was for years manager of the lamp department of the General Electric Co. on the Pacific Coast, with headquarters at San Francisco, and Mr. Cutting, also for many years, was signal supervisor on the Southern Pacific Company's lines, being later their engineer of train lighting, heating and ventilation. In 1913 he became Western manager of the Edison Storage Battery Co. at San Francisco. Mr. Fagan, it is observed, originated the idea of observing October 21 as "Edison Day," that being the anniversary of the invention of the incandescent lamp. Both are natives of California.

### Office in New Location.

The Wagner Electric Manufacturing Co. of St. Louis announce that their Cincinnati office has been removed to 20 East 9th St. and that a service station has been opened at the same address. I. W. Pettengill is in charge as district manager. Telephone is Canal 6261.

### Stabilization in Industry.

The frequency of accidents among shop employes has shown a considerable decrease, due to the stabilization in industry brought about by economic conditions, according to A. E. Kidd, employment manager of the Western Electric Co. at New York. "Employes are less restive today, and are not moving around from job to job," he states. "The fact that many industrial organizations are releasing

their employes has caused those who have jobs to hold on to them. The evidences show that industrial organizations are releasing the inefficient workers. There is an increase in the volume of applications, but the quality of the applicants is decidedly low. The greatest surplus of workers today appears to exist among the unskilled mechanics or those who operate one type of machine." The Western Electric Co. is now employing the largest personnel in its existence. There are 34,222 workers on the payrolls.

### Pittsburgh Office Established.

The Locomotive Superheater Co., whose general offices are at 30 Church St., New York city, announce that they opened on January 1 their own company office at 332-338 Union Arcade Bldg., Pittsburgh, Pa., and that John R. Le Vally, formerly sales engineer with the Chicago office of the Locomotive Superheater Co., has been appointed district manager there. Mr. Le Vally is a graduate of Armour Institute of Technology, and was for several years with the M. Rumeley Company of La Porte, Ind., on tractor work. Next he was with Armour & Co.'s Chicago plant as construction and power engineer, and finally superintendent of construction and power plants for the Union Stock Yards & Transit Co. and the Produce Terminal Corporation. He is a member of the A. S. M. E.

### Official Appointments.

The Chicago Pneumatic Tool Co. announce the appointment January 1 of R. F. Elssler as assistant to the vice-president, with headquarters in the company's new office building, 6 East 44th St., New York. W. C. Straub, formerly district manager of the New Orleans branch, has been appointed district manager of the Pittsburgh branch to succeed Mr. Elssler, and Ross Wyeth, formerly attached to the Pittsburgh branch, has been appointed district manager of the New Orleans branch to succeed Mr. Straub.

### Director Elected.

Lockwood, Greene & Co., Boston, Mass., announce that on January 3 Kenneth Moller was elected a director of their organization.

### Sales Office Moved.

The T. L. Smith Company, whose general sales offices have been at 470 Old Colony Bldg., Chicago, have moved this entire department and its complete personnel to Milwaukee, Wis., where it will be located from now on at the factories, 1125 32d St. The advertising department will also operate from the factory from now on. This move

was made principally to accomplish closer co-ordination between sales and service. Part of the new system will include the services of experienced engineers, who will instruct operators of each paver or excavator purchased so as to insure maximum production efficiency.

#### Name Changed—Capital Increased.

The Whiting Foundry Equipment Co., Harvey, Ill., announce a change of name to Whiting Corporation, and the authorized capital stock is increased from \$700,000 to \$3,000,000. There is no change of management, and the corporation will continue to manufacture cranes, foundry equipment and railway specialties as before.

### Trade Literature.

#### Calendars, 1921.

"There's a Long, Long Trail A-winding" is the title of a large picture in colors that adorns the 1921 calendar of the Thornton Fire Brick Co. of Clarksburg, W. Va., which is always represented by an artistic production. It is from an original painting by C. Warde Traver. The scene is one of moonlight, with mountains and river, two girls looking out upon it from their home. The work is remarkably fine. A large wall calendar, with printing in blue and gold, has been issued by the Universal Portland Cement Co., Chicago and other cities. The figures are white on a blue ground. H. E. Houck & Co., printers, Baltimore, have issued in white, black and red a valuable business calendar, large and clear, suited to office use. Meyer & Thalheimer, stationers and printers, Baltimore, also publish a practical calendar of the mural type. Large figures are in black and red, the latter color for holidays. George F. Lasher Printing Co., Philadelphia, have an unusually good office calendar, each monthly page carrying also the dates for the last month and the succeeding month. American Pattern Works, York, Pa., issue a hanger calendar of moderate dimensions, headed by a beautiful picture in colors of a mountain scene painted by Thomas Moran. Irving National Bank, New York city, puts on its calendar a lot of tax information of value to everyone, but especially for residents of New York. It is a fine wall calendar, a month to a page. Vulcanite Portland Cement Co., Philadelphia, Boston and New York, have a large wall calendar in olive green and gold, with white letters and figures, the trademark being produced in red, white and blue. O. J. Maigne Company, manufacturers of printers' rollers, Philadelphia and New York, issue one of their characteristically attractive and practical calendars for office use. Lockwood, Greene & Co., engineers, of Boston and other cities, publish a handsome hanger calendar, each page having a fine picture of one of their examples of building construction. J. G. Tilley Company, Inc., power equipment, relaying rails, boiler tubes, etc., Bristol, Va., issue an extremely artistic, large and beautiful calendar showing a mother with her little child in her arms. The picture is produced in most appropriate colors, and is surrounded by a gilt border. Beneath are the monthly dates for 1921. Mandeville Mills, Carrollton, Ga., manufacturers of acid phosphates, fertilizers, cottonseed products, single and ply warp yarns, have a hanger calendar with a large view showing how cotton is picked, below being small illustrations showing the works at Carrollton and at Bremen, Ga. F. E. Myers & Bro., Ashland, O., manufacturers of well and cistern pumps, standards, cylinders, tank pumps, hay-unloading tools, spray pumps, door hangers, etc., publish a hanger calendar in colors showing the

great variety of their products. A striking mural calendar is issued for 1921 by the Belmont Iron Works of Philadelphia. Upon the first page is a halftone showing the company's structural plant at Eddystone, Pa., while on several other pages are illustrations of important structural erections in various parts of the country in which Belmont products were used. A businesslike calendar in black and white has been issued for 1921 by the Pittsburgh Machinery Co., Suite 301 Jones Bldg., Fourth Ave., Pittsburgh, Pa., who deal in new and used machinery, electric, steam, gas and hydraulic rolling-mill equipment. The calendar is adapted for wall use. The American Tool Works Co., Cincinnati, O., manufacturers of lathes, planers, shapers, radial drills, etc., have issued a neat and practical hanger calendar, each page, in addition to the monthly dates, bearing an illustration of one of the company's products. K. I. Gvalani & Co., importers, exporters and commission merchants, Karachi, India, are represented by a fine wall calendar bearing a pretty picture in colors called "The Lesson," and showing a mother instructing her little girl. W. B. Conkey Company, book manufacturers, Hammond, Ind., have a large wall calendar showing a bird's-eye view of their general office and works, and they have added a new feature on each page, giving dates of interesting American historical events. Truscon Steel Co., Detroit, Mich., issue a fine hanger calendar, three months to a page, and each page having a fine picture relating to the company's products. D. L. Ward Company, distributors of paper and twine, Philadelphia and other cities, have published a convenient desk calendar with all the months of the year in immediate view.

#### Heaters.

The Ross Heater & Manufacturing Co., Inc., Buffalo, N. Y., have issued their Catalog F covering Ross heaters. These heaters are of the closed or tubular type, and they are made for heating all fluids through any range of temperature which may be desired, and also in any quantity. There are two general types, one known as instantaneous heaters and the other as storage heaters, and each type is made in various designs so that they may be adapted to the particular service they may have to perform.

#### "Tent Town" at St. Petersburg, Fla.

An article about the free "tent town" for automobile tourists, which the city of St. Petersburg, Fla., has established, is the principal feature of the Highway Magazine for January. It is excellently illustrated, one of the pictures showing the installation of Armeo iron culverts on one of the fine roads in that State. The "tent town" was created as a result of the activities of the St. Petersburg Chamber of Commerce, which perceived that if automobilists were attracted to the city they would necessarily spend considerable money to the advantage of local merchants, etc. No charge is made to the tourists for anything, and they are welcome to remain all winter if they like. Some of them are doing so. The "tent town" is right on the Dixie Highway.

#### "What Is Your Highway Problem?"

Under the above title a nicely bound portfolio has just been issued by the asphalt sales department of the Texas Company. This portfolio illustrates and concisely describes the steps in the construction of the various types of asphaltic pavements and roads, including sheet asphalt, asphaltic concrete, asphalt macadam, asphalt for surface treatment, asphaltic road oils, asphalt

filler, asphalt foundation, the use of asphalt to resurface worn brick and to resurface cement concrete. The portfolio begins with a description of Texaco highway service and concludes with a list of Texaco products and their various uses. This booklet may be obtained free from the Texas Company, asphalt sales department, 17 Battery Place, New York city.

### Book Reviews.

Use of Oils in Textile Mills. By Augustus H. Gill, Ph.D. Boston: "Textiles" 1920. Pp. 54.

This small volume, which is appropriately illustrated, contains an abundance of important facts relating to mineral oils, the many organic oils, lubricating grease and miscellaneous oils, all of which are separately described and considered. The chapters relating to the constituency and characteristics of these numerous lubricants are followed by others telling about how to test them for desired information. The work will doubtless be much appreciated by mill owners, managers and superintendents, as it presents in compact form a mass of material concerning the different lubricants which they display.

Chronology of Iron and Steel. Compiled by Stephen L. Goodale. Edited by J. Ramsey Speer. Pittsburgh, Pa.: Pittsburgh Iron & Steel Foundries Co. 1920.

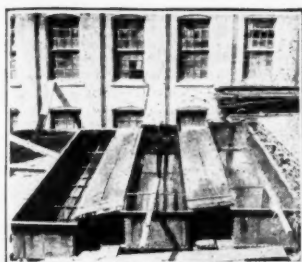
This little leather-bound volume of nearly 350 pages succinctly and graphically presents the history of iron and steel manufacture and development from the earliest times. It is noted that iron was known and used thousands of years before the Christian era and that it is mentioned in the ancient Sanskrit of the Rigveda, which was written over 3000 years ago. But that part of the book which is most interesting covers the eighteenth and nineteenth centuries, and also the twentieth century, as far as it has progressed, because it was during this period that the great discoveries and the tremendous development of the iron and steel industries have been accomplished. It is a record of facts, presented after the fashion of annals, but nevertheless full of vital interest to everyone. It is a most valuable reference book.

#### OBITUARY.

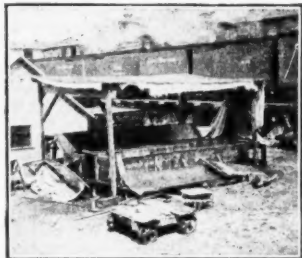
##### Harvey Derne.

Harvey Derne, superintendent of manufacture of the W. M. Ritter Lumber Co., Columbus, O., was killed in an automobile collision early on New Year's Day while going home with Mrs. Derne and several friends from the New Year party of the Columbus Athletic Club. Mr. Derne, who was 46 years of age, became connected with this company January 1, 1903, after previous connections with Burns Bros., the Chequasset Lumber Co. and the Raleigh Lumber Co., respectively. He was a very able business man, an authority in his line, and his sterling qualities made him a wide circle of friends, besides giving him a place of distinction in industrial circles. His first position with the Ritter Company was that of a division superintendent. Next he became general superintendent and finally superintendent of manufacture. Mr. Derne was born in Maryland and completed his education at St. John's College, Annapolis. He married Miss Myra Weaver of Asheville, N. C., who survives him with two children, 9 and 11 years old, respectively.

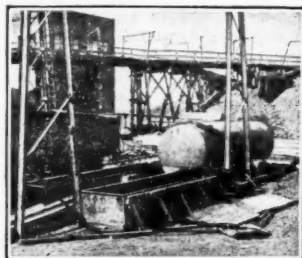
(Continued on Page 134)



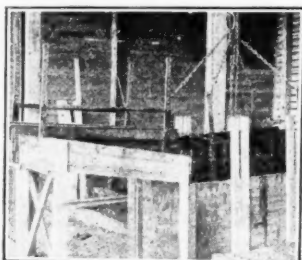
Paper Mill's permanent equipment for hot and cold treatment—three steel tanks, lined with galvanized sheet iron, equipped with steam coils for heating preservative. Draining board at left.



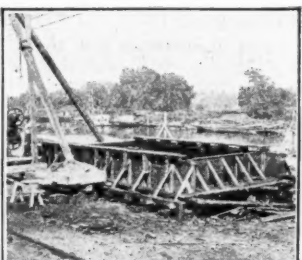
Industrial Plant's equipment for hot and cold treatment—large tank, lined with galvanized sheet iron, equipped with steam coils for heating preservative. Draining board at left.



Plant of iron mine for hot and cold treatment, with 10,000 gallon storage tank for preservative. Yard crane used for handling timber.



Single unit tank for dipping lumber of small cross-section, and species readily impregnated in heated Carbosota. Capacity: 400 pieces of 1 in. by 4 in. by 5 ft. per charge.



Single unit plant for hot and cooling treatment. Wood tank, lined with sheet metal, equipped with steam coils. Capacity: 10,000 ft. B. M. per 24 hour day.



## Carbosota has Popularized Wood Preservation—

**C**ARBOSOTA Liquid Creosote Oil has made possible the more general practice of wood preservation.

Thousands of timber users the country over are increasing the life of structural wood—practicing timber conservation—through Open Tank treatment with Carbosota.

As will be seen by the illustrations, costly apparatus is not required. A non-pressure carbosoting plant, capable of treating small or large quantities of lumber, posts and timber, can be readily installed at reasonable cost.

Carbosota Liquid Creosote Oil is a highly refined and specially processed coal-tar creosote, particularly adapted for Surface treatments (brush treatment or painting, spraying and dipping), and the Open Tank process (hot and cold or hot and cooling, treatment). It conforms to standard specifications. Its superior feature is the low liquid point of 41° F.

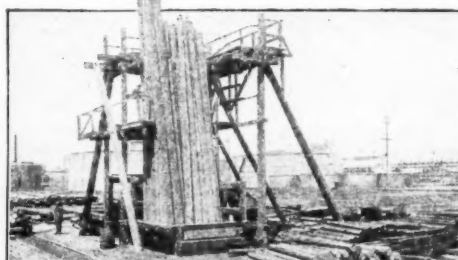
Non-pressure treatments, either the Open Tank process or Surface treatments are available to every consumer. Technical advice and literature free upon request.

(Green wood cannot be effectively creosoted by non-pressure processes. It should be seasoned. All framing, drilling of bolt holes, etc., should be completed before treatment. If this is impossible, two brush coats of Carbosota should be applied to all untreated surfaces exposed by subsequent cutting or drilling.)

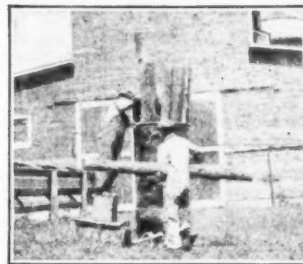
### The Barrett Company

New York	Chicago	Philadelphia	Boston	St. Louis
Cleveland	Cincinnati	Pittsburgh	Detroit	New Orleans
Birmingham	Kansas City	Minneapolis	Duluth	
Nashville	Syracuse	Seattle	Pearl	Atlanta
Salt Lake City	Bangor	Washington	Johnstown	Lebanon
Youngstown	Milwaukee	Loiseno	Columbus	Richmond
La Roche	Bethlehem	Elizabeth	Buffalo	Baltimore
Omaha	Houston	Denver	Jacksonville	

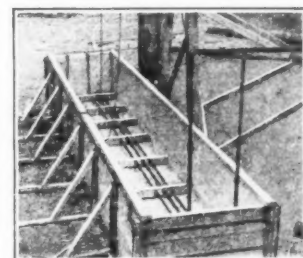
THE BARRETT COMPANY, LIMITED:  
Vancouver Montreal Toronto Winnipeg  
St. John, N. B. Halifax, N. S.



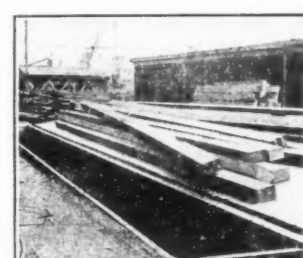
Consumer's Open Tank process (hot and cooling treatment) cedar pole creosoting plant.



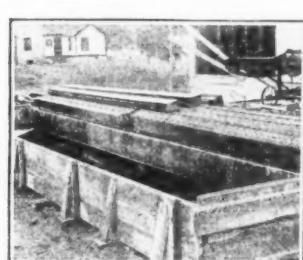
Butt-treating cedar fence posts by hot and cooling treatment. Typical farm equipment—100 gallon drum with fire place underneath.



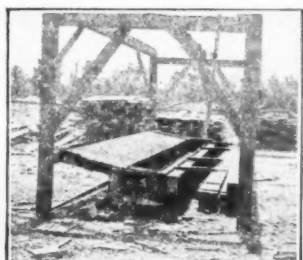
Small, single unit, hot and cooling wood tank lined with galvanized sheet iron; steam coils and two ton chain block hoist. Used mostly for creosoting in industrial repair work.



Single unit steel tank for hot and cooling treatment of freight car sills. Capacity 20 to 25 sills per 24 hour day.



Farmer's home-made hot and cooling tank, wood, lined with sheet iron, without steam coils, as work of treating sills done in summer.



Single unit tank for creosoting coal mine shaft timber. Built of tongue and groove lumber, double wall, caulked, etc. Metal lining is preferable to guard against leakage.



# Financial News

## New Financial Corporations.

Ala., Bessemer.—City National Bank of Bessemer, conversion of United States Savings Bank of Bessemer, capital \$100,000, organized by W. W. Hollingsworth, Prest.; G. B. Hollingsworth, Cashr.

Ark., Little Rock.—Pulaski County Abstract Co., capital \$10,000; inceptd. by W. P. Wilson, B. F. Henry, J. J. Martin.

Ark., Pine Bluff.—Road.—Jefferson County Road Improvement Dist. No. 22 issued \$140,000 bonds.

Fla., Quincy.—J. T. Budd, Jr., & Co., capital \$100,000, inceptd. by J. T. Budd, Jr., Prest.; W. F. Graves, V.-P.; J. E. Graves, Secy.-Treas.

Fla., West Palm Beach.—Palm Beach Savings and Loan Assn., capital \$200,000, inceptd. by S. C. Hill, Prest.; B. D. Cole, V.-P.; H. E. Robinson, Secy.; W. J. von Behren, Treas.

Ga., Athens.—Georgia National Bank of Athens, consolidation of Georgia National Bank and American State Bank, capital \$1,500,000, deposits \$2,500,000 and resources \$6,000,000, organized with following officers: John J. Wilkins, Prest.; M. G. Nicholson, V.-P.; W. P. Brooks, Cashr.

Ky., Allen.—Floyd County Bank, capital \$25,000, organized with D. B. Stephens, Prest.; R. V. Wohlford, V.-P.; Emery B. Chase, Secy.-Treas. and Cashr. (Supersedes recent item.)

Ky., Stone.—First National Bank of Stone, capital \$50,000, organized with following officers: R. L. Bailey, Prest.; J. W. Taylor, V.-P.; J. A. Newton, Cash. (Supersedes recent item.)

Ky., Mt. Olivet.—First National Bank of Mt. Olivet, capital \$35,000, chartered.

La., Alexandria.—Guaranty Bank & Trust Co., consolidation of First National Bank and City Savings Bank, capital and surplus \$1,250,000.

La., Gretna.—Bank of Marrero, capital \$30,000, organized with Leo A. Marrero, Prest.; T. W. Coffer, V.-P.; Archie C. Grefer, Cashr.

La., New Orleans.—Canal.—Commercial Trust and Savings Bank, consolidation of Canal Commercial Trust and Savings Bank and Canal-Commercial National Bank, capital and surplus \$7,000,000, organized; W. R. Irby.

La., Vivian.—Street.—Town, F. B. Rieves, Clk., did not receive bids on \$34,000 of 5 per cent \$500 denomination 1 to 22 yr. bonds, dated Aug. 1. (Lately noted inviting bids.)

Mo., Jefferson City.—Mount Washington State Bank, capital \$10,000, chartered, with Chester Cooke, Prest.

Mo., North Kansas City.—Industrial Savings Bank, capital \$50,000, inceptd. by W. E. Macken, D. E. Jenkins; both North Kansas City, Mo.; L. C. Browning, Kansas City, Mo.

Mo., St. Louis.—Republic National Bank, capital and surplus \$1,250,000, organized by Wm. Sacks, C. W. Bainbridge, W. F. Evans, Walter M. Smith.

Mo., St. Louis.—Liberty Central Trust Co., Broadway and Olive St., capital \$3,000,000, inceptd. by J. L. Johnston, Prest.; Chas. A. Lemp, R. R. Clabaugh. (Lately noted.)

N. C., Winston-Salem.—Security Building and Loan Assn., Masonic Bldg., capital \$300,000, inceptd. by Geo. W. Coan, Jr., C. E. Johnson, S. C. Ogburn.

Okla., Altus.—Guarantee Title Co., capital \$500, inceptd. by M. H. Wooldridge, B. C. Holt, C. S. Williams.

Okla., Drumright.—Drumright Insurance Agency, capital \$10,000; inceptd. by H. C. De Munbrun, Drumright, Okla.; R. E. Campbell,

B. De Munbrun, both Olton, Okla.

Okla., El Reno.—Drainage.—Canadian County Comms. plan bond issue.

Okla., Okmulgee.—Bank of Commerce, consolidation of Bank of Commerce and Guaranty State Bank, Bert L. Wigton, Prest.; W. W. Jenkins, V.-P.; J. Ray Brown, Cash.

S. C., Cheraw.—New Home Builders' Assn., capital \$250,000, organized with following officers: J. Wilson Malloy, Prest.; J. O. Raley, V.-P.; D. L. Tillman, Secy.-Treas. (Supersedes recent item.)

S. C., Columbia.—High Point Investment Co., capital \$20,000, inceptd. by A. D. McFadden, Prest.; John H. Bollin, Jr., Secy.

S. C., Greenville.—Blue Ridge Securities & Storage Co., capital \$200,000, with L. M. McBee, Prest.; L. C. Harris, Secy.

S. C., Union.—Nicholson Bank & Trust Co., consolidation of Merchants and Planters National Bank and Nicholson Bank & Trust Co.; capital and surplus, \$270,000; organized by Emslie Nicholson, L. M. Jordan, J. Wosley Greer.

Tex., Brenham.—B. M. Fedford Investment Co., capital \$30,000, inceptd. by B. M. Fedford, W. L. Williams, R. S. Cott.

Tex., Hartley.—Farmers Equity Co., capital \$10,000; inceptd. by J. W. Smith, J. H. McKinney, B. J. Bryant.

Tex., Mexia.—City National Bank of Mexia, capital \$100,000, chartered.

Va., Roanoke.—National Investment Co., capital \$50,000, inceptd. by Harvey B. Apperson, Prest.; A. T. Loyd, Secy.; G. A. Wingfield.

Va., Stuart.—First National Bank of Stuart, conversion of Citizens Bank of Stuart, capital \$50,000, with G. T. Divers, Prest.; J. S. Taylor, Cash.

W. Va., Beckley.—Commercial National Bank of Beckley, capital \$50,000, chartered.

## New Securities.

Ala., Birmingham.—Water.—Public Service Comsn. will sell \$700,000 bonds.

Ala., Mobile.—Road.—Mobile County Commissioners will sell road bonds.

Ark., Van Buren.—Road.—Crawford County Road Dist. No. 6 sold \$17,000 of 7 per cent \$1000 denomination bonds, dated Nov. 1, to Hanchett Bond Co., Chicago, Ill.

Fla., Bartow.—Road and Bridge.—Polk County Comms., J. A. Johnson, Clk., will receive bids until Jan. 20 on \$200,000 of 6 per cent semi-annual road and bridge bonds.

Fla., Jacksonville.—Dock, Street, Water and Sewer.—City Comsn. contemplates voting on \$2,000,000 bonds, including \$1,000,000 dock, \$1,000,000 street, sewer and water bonds. (Lately noted.)

Fla., Marianna.—School.—Jackson County Dist. No. 25 sold \$10,000 of 5 per cent semi-annual \$1000 denomination bonds, dated July 1, to Hanchett Bond Co., Chicago, Ill.

Fla., Miami Beach.—Water and Fire Department.—City, C. W. Tomlinson, Clk., will receive bids until Jan. 19 on \$75,000 of 5 per cent 12½ and 15½ yr. bonds including \$50,000 water and \$25,000 fire department.

Fla., South Jacksonville.—Sewer and Street.—City, R. M. Rogero, Clk., will receive bids until Feb. 1 on \$190,000 of 6 per cent semi-annual \$1000 denomination bonds, dated Nov. 1. (Supersedes recent item.)

Fla., Titusville.—School.—Brevard County Board of Instruction voted \$40,000 bonds of Special Sub-Tax School Dist. No. 3. (Lately noted to vote.)

La., Covington.—Road.—St. Tammany Parish Police Jury will vote on \$250,000 bonds.

La., Crowley.—Road.—Acadia Parish Police Jury, J. G. Medlenka, Prest., will receive bids

until Feb. 8 on \$530,000 of 5 per cent semi-annual bonds, dated Jan. 1, including \$350,000 Sixth Ward Subroad Dist. No. 2 and \$180,000 Road Dist. No. 2.

La., Harrisonburg.—Road.—Catahoula Parish Police Jury, J. B. Fain, Prest., will receive bids until Feb. 10 on \$690,000 of 5 per cent semi-annual 39-yr. bonds of Road Dists. 1, 2 and 3.

La., Monroe.—School.—City contemplates issuing \$400,000 school bonds. Address The Mayor.

La., New Albany.—School.—Union Parish, Bernice High School Dist., sold \$13,000 of 5 per cent semi-annual \$1000 denomination bonds, dated July 1, to Hanchett Bond Co., Chicago, Ill.

La., Winnfield.—Road.—Winn Parish Police Jury, Kenneth Watts, will receive bids until Jan. 24 on \$1,000,000 of 5 per cent road bonds.

Mo., Marston.—School.—Marston School Dist., C. M. Barnes, Secy., will invite bids about Feb. 1 on \$15,000 of 6 per cent \$500 denomination serial bonds, dated about Feb. 1. (Lately noted voting.)

N. C., Asheville.—Refunding.—City Comms. will sell \$15,000 refunding bonds.

N. C., Asheville.—Street and Sewer.—City Comms. contemplates voting on bonds.

N. C., Benson.—Electric, Water and Sewer.—City sold \$155,000 of 5½ per cent bonds, including \$50,000 electric, \$70,000 water and \$35,000 sewer bonds to Sidney, Spitzer & Co., Toledo, O., at par.

N. C., Benson.—Electric and Water.—Town will receive bids until Jan. 15 on \$75,000 of 6 per cent bonds, dated Dec. 1, including \$30,000 electric and \$45,000 water.

N. C., East Spencer.—School.—Town, E. W. Staton, Clk., will receive bids until Feb. 21 on \$45,000 of 6 per cent 30-yr. \$500 denomination bonds.

N. C., Kinston.—Road.—Lenoir County Commissioners, John H. Dawson, County Treas., sold \$700,000 of 6 per cent semi-annual \$1000 denomination bonds, dated June 1, to A. B. Leach & Co., New York. (Lately noted inviting bids.)

N. C., Monroe.—Road and Bridge.—Union County Comms., M. C. Long, Clk., sold \$300,000 of 6 per cent semi-annual \$1000 denomination 29-yr. bonds, dated Dec. 1. (Lately noted inviting bids.)

N. C., Mooresville.—School.—Mooresville Graded School Dist., A. W. Colson, Secy.-Treas., will receive bids until Feb. 5 on \$50,000 of 6 per cent semi-annual \$1000 denomination 30-year bonds, dated Jan. 1.

N. C., Oxford.—School.—Oxford Graded School Dist., J. Ennis Davis, Chrmn., will vote Jan. 18 on \$75,000 bonds.

N. C., Raleigh.—School.—Raleigh Township School Comm., J. F. Ferrell, Secy., contemplates voting on \$1,000,000 bonds.

N. C., Raleigh.—Water, Sewer, Street Equipment and Funding.—Dept. Public Works issued \$360,000 bonds, including \$115,000 funding, \$100,000 sewer, \$85,000 water, \$35,000 curb and gutter and \$25,000 street improvement. (Lately noted.)

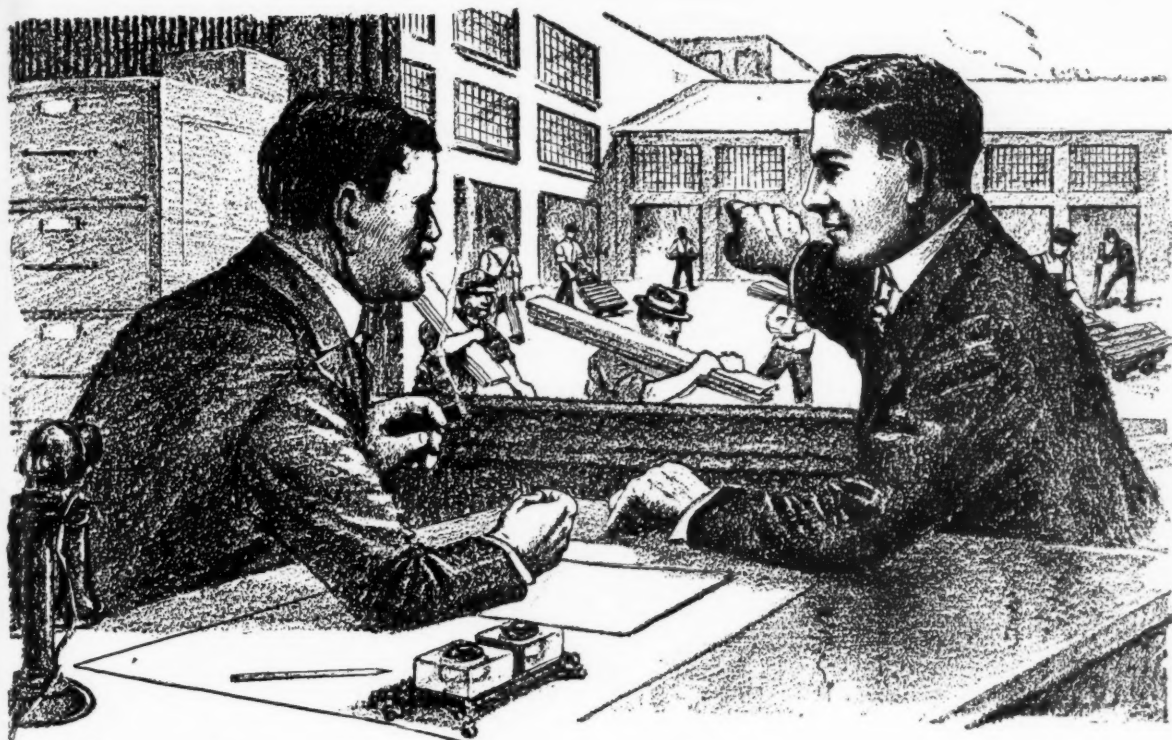
N. C., St. Pauls.—Sewer and Water.—Town, John S. Butler, Clk., sold \$125,000 of 6 per cent serial semi-annual \$1000 denomination 27 yr. bonds, dated Apr. 1, to Bank of St. Pauls. (Lately noted inviting bids.)

Okla., Holdenville.—Water.—City issued \$20,000 bonds. Address The Mayor.

Okla., Miami.—School.—Ottawa County School Dist. No. 31 sold \$8000 of 6 per cent semi-annual \$500 denomination bonds to Hanchett Bond Co., Chicago, Ill.

Okla., Oklahoma City.—Street.—City issued street bonds. Address The Mayor.

(Continued on Page 138)



*Move it Mechanically*

# Mr. Executive—

Haven't those  
wasteful methods  
a great deal to  
do with your  
high cost of  
production?

There are better  
methods.

NEW YORK CITY  
BOSTON  
PHILADELPHIA

RICHMOND  
MEMPHIS  
ATLANTA  
DALLAS

WRITE THE NEAREST OFFICE  
INDIANAPOLIS  
MINNEAPOLIS  
DES MOINES  
PITTSBURGH  
HOUSTON  
MILWAUKEE  
CHICAGO  
ST. LOUIS

CLEVELAND  
BUFFALO  
DETROIT  
KANSAS CITY

SAN FRANCISCO  
LOS ANGELES  
PORTLAND  
SEATTLE



# Lakewood

EXPORT-ALLIED MACHINERY CO OF AMERICA, N.Y. CITY

## Methods and Machines



THE LAKESIDE ENGINEERING COMPANY, CLEVELAND, U. S. A.

### The Nation and the Automobile.

Facts and figures of the automobile industry during the year 1920, prepared by Alfred Reeves, general manager National Automobile Chamber of Commerce, show to what a remarkable extent the nation is influenced by the automobile, its production and utilization. Particularly significant, in our opinion, is the statement that of the entire 1920 output, 60 per cent was purchased by the agricultural districts, and that of all cars manufactured, 90 per cent are used more or less for business.

Mr. Reeves' figures are given below:

#### AUTOMOBILE USE.

Automobiles registered in United States (approximately)	8,500,000
Passenger cars registered in United States.....	7,600,000
Motor trucks registered in United States.....	900,000
Cars and trucks owned by farmers.....	2,500,000
Per cent of registration in towns of 5000 population or less	55%
Per cent of registration in towns of 1000 population or less	33%
Per cent of 1920 output bought by agricultural districts...	60%
Passenger cars owned by doctors.....	110,000
State-owned cars and trucks.....	30,125
Municipally-owned cars and trucks.....	10,314
Trucks owned by farmers.....	80,000
Labor-saving value of truck to each farmer annually.....	\$150
Saving in transport charges to each farmer annually through use of truck.....	\$240

#### AUTOMOBILE'S PART IN NATION'S BUSINESS.

Amount of special taxes paid annually by industry to Federal Government.....	\$257,000,000
Registration fees paid by car users.....	\$81,000,000
Per cent of all cars used more or less for business.....	90%
Per cent of total mileage used for business.....	60%
Gain business efficiency from use of car as reported by average owner.....	57%
Average increase in doctors efficiency through use of car	104%
Per cent of steel supply used by automobile industry.....	4%
Amount paid by industry to railroads for freight on shipments of finished motor vehicles.....	\$100,000,000

#### PRODUCTION IN 1920.

Cars and trucks produced.....	2,241,000
Passenger cars produced.....	1,906,000
Motor trucks produced.....	335,000
Wholesale value of cars and trucks produced.....	\$2,136,183,676
Wholesale value of passenger cars produced.....	\$1,703,437,213
Wholesale value of motor trucks produced.....	\$432,746,463
Average wholesale price of passenger cars produced.....	\$887
Average wholesale price of motor trucks produced.....	\$1,273
Motor truck manufacturers in production.....	170
Passenger car manufacturers in production.....	90
States in which factories are located.....	32
Employees engaged in car and truck manufacture.....	300,000
Automobile tires manufactured.....	32,400,000
Increase in gasoline production over 1919.....	19%

#### AUTOMOBILE EXPORTS IN 1920.

Value of motor vehicles and parts exported, including engines and tires.....	\$338,000,000
Number of passenger automobiles exported.....	153,000
Increase in number of passenger cars exported.....	120%
Value of passenger cars exported.....	\$155,000,000
Number of motor trucks exported.....	27,000
Increase in number of trucks exported.....	60%
Value of motor trucks exported.....	\$45,000,000
Number of countries to which automobiles were exported during year.....	114

#### DEALERS AND GARAGES IN U. S.

Passenger car dealers.....	26,210
Motor truck dealers.....	20,596
Garages.....	38,538
Repair shops.....	47,556

### Texas Vegetable Crop Movement Larger.

J. S. Pyeatt, president of the Gulf Coast Lines, Houston, Tex., is reported saying that the company's budget for 1921 calls for an expenditure of more than \$1,000,000 for trackage and other road-bed improvement, which will include laying 4000 tons of 85-pound rails. It is estimated that 7500 cars will be needed to move to market the vegetable crops from the lower Gulf Coast country. Already the crop movement amounts to 10 cars a day.

### Year's Railroad Revenue Shows Two-Thirds Decline.

Estimates made by the Bureau of Railway Economics, Washington, D. C., show that the railroads of the United States during 1920 earned only about \$150,000,000 or \$365,000,000 less than they did in 1919, according to a statement made public by H. P. Parmelee, director. The estimates show that the gross receipts of the railroads during the year totaled \$6,200,000,000 and their expenses were \$5,750,000,000, leaving a gross revenue of \$450,000,000. Taxes and equipment rentals amounted to \$300,000,000, which left a net revenue of \$150,000,000.

### ANNUAL REPORT OF THE CONDITION OF THE

## Citizens Savings Bank

### OF BALTIMORE CITY

### OF BALTIMORE, IN THE STATE OF MARYLAND

#### SOUTHWEST CORNER OF BALTIMORE AND EUTAW STREETS

at the close of business December 31, 1920, in conformity with Section 36 of the Banking Law.

Funds on hand December 31, 1919.....	\$5,923,284.90
Received from depositors during 1920...	4,671,957.34
Received interest and dividends on stocks, bonds, loans, etc., during 1920...	300,748.30
Total.....	\$10,895,990.54

Paid depositors during 1920, including interest.....	\$4,568,492.43
Paid expenses during 1920.....	34,125.86
Paid taxes during 1920.....	17,368.08
Paid premiums, etc., during 1920.....	6,853.27
Ledger cost of bonds reduced during 1920.....	3,000.00
Funds on hand December 31, 1920.....	6,266,150.90
Total.....	\$10,895,990.54

#### ASSETS

(Book Value)

Bonds and stocks owned.....	\$4,269,313.58
Loans on collateral.....	317,280.00
Loans on mortgages.....	1,322,890.00
Real estate (bank building).....	25,000.00
Other real estate owned and ground rents.....	42,504.16
Miscellaneous assets.....	1,552.50
Cash on hand in banks and trust companies.....	287,610.66
Total.....	\$6,266,150.90

#### LIABILITIES

Due depositors, including interest credited January 1, 1921.....	\$5,890,070.65
Guarantee fund and undivided surplus..	376,080.25
Total.....	\$6,266,150.90

Accounts open December 31, 1919.....	8380
Accounts opened during 1920.....	1329
Accounts closed during 1920.....	1174
Accounts existing December 31, 1920.....	8535

CHARLES SPILMAN,

President.

WILLIAM SPILMAN,

Treasurer.

We, the undersigned, appointed by the President and Board of Directors of the Citizens Savings Bank of Baltimore City to audit the above statement, do hereby certify that we have examined the same and find it correct.

OWEN DALY,  
(Owen Daly & Co.)

THEO. F. KRUG,  
(G. Krug & Son)

J. DUKES DOWNES,  
(Vice-President Title Guarantee and Trust Co.)



# STATE OF MARYLAND

## TREASURY DEPARTMENT

### \$500,000 Four and One-Half Per Cent. "Construction Loan of 1920."

ANNAPOLIS, MD., December 23, 1920.

Pursuant to Chapter 727 of the Acts of the General Assembly of Maryland of 1920, providing for the issue of the Certificates of Indebtedness herein mentioned and described and pursuant also to a resolution of the Board of Public Works of Maryland passed on December 20, 1920, and on file and open to inspection in the office of the said Board in Annapolis, Maryland, the Treasurer of the State of Maryland will receive bids or proposals for Certificates of Indebtedness of the State of Maryland as follows:

#### \$500,000 Four And One-Half Per Cent. Certificates Of Indebtedness Known As "Construction Loan Of 1920."

Said Certificates of Indebtedness will all be dated February 15, 1921. They will bear interest at the rate of four and one-half per centum (4½%) per annum, payable semi-annually on the 15th days of August and February, respectively, in each and every year during the continuance of the loan. The principal of said loan will be payable upon the Serial Annuity Plan, as more fully set forth in said Act of 1920, Chapter 727, as follows:

#### "CONSTRUCTION LOAN OF 1920."

Series "A"	\$29,000	February 15, 1924
Series "B"	30,000	February 15, 1925
Series "C"	32,000	February 15, 1926
Series "D"	33,000	February 15, 1927
Series "E"	35,000	February 15, 1928
Series "F"	36,000	February 15, 1929
Series "G"	38,000	February 15, 1930
Series "H"	40,000	February 15, 1931
Series "I"	42,000	February 15, 1932
Series "J"	44,000	February 15, 1933
Series "K"	45,000	February 15, 1934
Series "L"	47,000	February 15, 1935
Series "M"	49,000	February 15, 1936

The said Certificates of Indebtedness will be of the denomination of \$1000 each, subject to registration as to principal, and all will be issued with interest coupons attached.

This loan and the interest payable thereon is exempt from the Federal income tax and from State, County and Municipal taxation.

The said bids or proposals must be delivered to the Treasurer of the State at his office in Annapolis, Maryland, before 12 o'clock M. on THURSDAY, FEBRUARY 3, 1921. Each bid must be for cash on delivery, and must be enclosed in a sealed envelope addressed on the outside "Proposal for Construction Loan of 1920." Each bid must be accompanied by a certified check upon some responsible banking institution, drawn to the order of the Treasurer of Maryland, for five per centum (5%) of the par value of the amount bid for. All bids or proposals will be opened at 12 o'clock noon on February 3, 1921, in the presence of the undersigned.

On the opening of said proposals, as many of said Certificates of Indebtedness as have been bid for, not exceeding, however, the amount for which proposals are invited, may be awarded by the Governor, the Comptroller of the Treasury and the Treasurer, or a majority of them, to the highest responsible bidder or bidders therefor for cash; and if two or more responsible bidders have made the same bid and such bid is the highest and the Certificates so bid for by such highest responsible bidders are in excess of the whole amount of Certificates as offered for sale, then such Certificates of Indebtedness may be awarded in a ratable proportion to such responsible bidders bidding the same price.

The undersigned may, in their discretion, accept one bid for all of said loan or separate bids for parts of said loan as may produce the largest amount; and they may, in their discretion, accept bids which may be for part of said loan, but are not for all, and they reserve the right in their discretion to reject all bids or any bids.

The Certificates of Indebtedness awarded will be delivered to the successful bidder or bidders upon receipt of the amount of the successful bid or bids on TUESDAY, FEBRUARY 15, 1921, at the office of the State Treasurer, Annapolis, Maryland.

Bidders are referred to the said Chapter 727 of the Acts of the General Assembly of Maryland of 1920, as containing the full terms and provisions of this loan.

The constitutionality and validity of said Act of Assembly authorizing the issuance of said Certificates of Indebtedness have been favorably passed upon by the Attorney-General of Maryland, who will also certify that all necessary legal formalities prescribed for said issue have been duly complied with.

ALBERT C. RITCHIE,  
Governor.  
E. BROOKE LEE,  
Comptroller of the Treasury.  
JOHN M. DENNIS,  
Treasurer.

### \$1,500,000 Four And One-Half Per Cent. "Lateral and Post Roads Loan of 1920." Issue of February 15, 1921.

ANNAPOLIS, MD., December 23, 1920.

Pursuant to Chapter 508 of the Acts of the General Assembly of Maryland of 1920, providing for the issue of the Certificates of Indebtedness herein mentioned and described, and pursuant also to a resolution of the Board of Public Works of Maryland passed on December 20, 1920, and on file and open to inspection in the office of the said Board in Annapolis, Maryland, the Treasurer of the State of Maryland will receive bids or proposals for Certificates of Indebtedness of the State of Maryland as follows:

#### \$1,500,000 Four And One-Half Per Cent. Certificates Of Indebtedness Known As "Lateral And Post Roads Loan Of 1920."

Said Certificates of Indebtedness will all be dated February 15, 1921. They will bear interest at the rates of four and one-half (4½%) per centum, payable semi-annually on the 15th days of August and February, respectively, in each and every year during the continuance of the loan.

The principal of said loan will be payable upon the Serial Annuity Plan, as more fully set forth in said Act of 1920, Chapter 508, as follows:

#### "LATERAL AND POST ROADS LOAN OF 1920."

Series "N"	\$87,000	February 15, 1924
Series "O"	91,000	February 15, 1925
Series "P"	96,000	February 15, 1926
Series "Q"	99,000	February 15, 1927
Series "R"	104,000	February 15, 1928
Series "S"	109,000	February 15, 1929
Series "T"	114,000	February 15, 1930
Series "U"	119,000	February 15, 1931
Series "V"	125,000	February 15, 1932
Series "W"	130,000	February 15, 1933
Series "X"	137,000	February 15, 1934
Series "Y"	142,000	February 15, 1935
Series "Z"	147,000	February 15, 1936

The said Certificates of Indebtedness will be of the denomination of \$1000 each, subject to registration as to principal, and all will be issued with interest coupons attached.

This loan and the interest payable thereon is exempt from the Federal income tax, and from State, County and Municipal taxation.

The said bids or proposals must be delivered to the Treasurer of the State, at his office in Annapolis, Maryland, before 12 o'clock noon on THURSDAY, FEBRUARY 3, 1921. Each bid must be for cash on delivery, and must be enclosed in a sealed envelope addressed on the outside "Proposal for Lateral and Post Roads Loan of 1920 (February Issue)." Each bid must be accompanied by a certified check upon some responsible banking institution, drawn to the order of the Treasurer of Maryland, for five per centum (5%) of the par value of the amount bid for. All bids or proposals will be opened at 12 o'clock noon on February 3, 1921, in the presence of the undersigned.

On the opening of said proposals, as many of said Certificates of Indebtedness as have been bid for, not exceeding, however, the amount for which proposals are invited, may be awarded by the Governor, the Comptroller of the Treasury and the Treasurer, or a majority of them, to the highest responsible bidder or bidders therefor for cash; and if two or more responsible bidders have made the same bid and such bid is the highest and the Certificates so bid for by such highest responsible bidders are in excess of the whole amount of Certificates as offered for sale, then such Certificates of Indebtedness may be awarded, in a ratable proportion, to such responsible bidders bidding the same price.

The undersigned may, in their discretion, accept one bid for all of said loan or separate bids for parts of said loan as may produce the largest amount; and they may, in their discretion, accept bids which may be for part of said loan, but are not for all, and they reserve the right in their discretion to reject all bids or any bids.

The Certificates of Indebtedness awarded will be delivered to the successful bidder or bidders upon receipt of the amount of the successful bid or bids on TUESDAY, FEBRUARY 15, 1921, at the office of the State Treasurer, Annapolis, Maryland.

Bidders are referred to the said Chapter 508 of the Acts of the General Assembly of Maryland of 1920, as containing the full terms and provisions of this loan.

The constitutionality and validity of said Act of Assembly authorizing the issuance of said Certificates of Indebtedness have been favorably passed upon by the Attorney-General of Maryland, who will also certify that all necessary legal formalities prescribed for said issue have been duly complied with.

ALBERT C. RITCHIE,  
Governor.  
E. BROOKE LEE,  
Comptroller of the Treasury.  
JOHN M. DENNIS,  
Treasurer.

### \$500,000 Four and One-Half Per Cent. "Lateral and Post Roads Loan of 1920"

#### Unsold Balance of Issue of August 15, 1920.

ANNAPOLIS, MD., December 23, 1920.

Pursuant to Chapter 508 of the Acts of the General Assembly of Maryland of 1920, providing for the issue of the certificates of Indebtedness herein mentioned and described, and pursuant also to a resolution of the Board of Public Works of Maryland passed on December 20, 1920, and on file and open to inspection in the office of the said Board in Annapolis, Maryland, the Treasurer of the State of Maryland will receive bids or proposals for Certificates of Indebtedness of the State of Maryland as follows:

#### \$500,000 Four and One-Half Per Cent. Certificates of Indebtedness known as "Lateral and Post Roads Loan of 1920." Unsold balance of issue of August 15, 1920.

Said Certificates of Indebtedness are all dated August 15, 1920. They bear interest at the rate of four and one-half (4½%) per centum, payable semi-annually on the 15th days of February and August, respectively, in each and every year during the continuance of the loan.

The principal of said loan is payable upon the Serial Annuity Plan, as more fully set forth in said Act of 1920, Chapter 508, as follows:

#### "LATERAL AND POST ROADS LOAN OF 1920."

Series "J"	\$74,000	August 15, 1932
Series "K"	137,000	August 15, 1933
Series "L"	142,000	August 15, 1934
Series "M"	147,000	August 15, 1935

The said Certificates of Indebtedness are of the denomination of \$1000 each, subject to registration as to principal, and all will be issued with interest coupons for August 15, 1921, and subsequent interest dates attached.

This loan and the interest payable thereon is exempt from the Federal income tax and from State, County and Municipal taxation.

The said bids or proposals must be delivered to the Treasurer of the State, at his office in Annapolis, Maryland, before 12 o'clock noon on Thursday, February 3, 1921. Each bid must be for cash on delivery and must be enclosed in a sealed envelope addressed on the outside "Proposal for Lateral and Post Roads Loan of 1920 (August Issue)." Each bid must be accompanied by a certified check upon some responsible banking institution, drawn to the order of the Treasurer of Maryland, for five per centum (5%) of the par value of the amount bid for. All bids or proposals will be opened at 12 o'clock noon on February 3, 1921, in the presence of the undersigned.

On the opening of said proposals, as many of said Certificates of Indebtedness as have been bid for, not exceeding, however, the amount for which proposals are invited, may be awarded by the Governor, the Comptroller of the Treasury and the Treasurer, or a majority of them, to the highest responsible bidder or bidders therefor for cash; and if two or more responsible bidders have made the same bid and such bid is the highest and the Certificates so bid for by such highest responsible bidders are in excess of the whole amount of Certificates as offered for sale, then such Certificates of Indebtedness may be awarded, in a ratable proportion to such responsible bidders bidding the same price.

The undersigned may, in their discretion, accept one bid for all of said loan or separate bids for parts of said loan as may produce the largest amount; and they may in their discretion accept bids which may be for part of said loan, but are not for all, and they reserve the right in their discretion to reject all bids or any bids.

The Certificates of Indebtedness awarded will be delivered to the successful bidder or bidders upon receipt of the amount of the successful bid or bids on TUESDAY, FEBRUARY 15, 1921, at the office of the State Treasurer, Annapolis, Maryland.

Bidders are referred to the said Chapter 508 of the Acts of the General Assembly of Maryland of 1920, as containing the full terms and provisions of this loan.

The constitutionality and validity of said Act of Assembly authorizing the issuance of said Certificates of Indebtedness have been favorably passed upon by the Attorney-General of Maryland, who will also certify that all necessary legal formalities prescribed for said issue have been duly complied with.

ALBERT C. RITCHIE,  
Governor.  
E. BROOKE LEE,  
Comptroller of the Treasury.  
JOHN M. DENNIS,  
Treasurer.

Okla., Tulsa—Water.—City Comsn. contemplates voting on water bonds.

Okla., Walters — School. — Cotton County Board of Education sold \$47,500 of 6 per cent semi-annual \$1000 and \$500 denomination bonds, dated Dec. 1, to Hanchett Bond Co., Chicago, Ill.

S. C., Charleston.—Santee Bridge Dist. of Charleston, Berkeley and Williamsburg Counties will receive bids until Feb. 1 on \$200,000 of total authorized issue \$500,000 of 6 per cent semi-annual; \$1000 denomination bonds, dated Jan. 3.

S. C., Eau Claire—Water.—City sold \$40,000 of 6 per cent bonds to Carolina Bond & Mortgage Co., Columbia, at par.

S. C., Gaffney—Funding.—Cherokee County Comms., W. H. Ross, Clk., will receive bids until Jan. 17 on \$100,000 of 6 per cent semi-annual 4½-yr. bonds.

S. C., Orangeburg—Culvert and Bridge.—Orangeburg County Bridge Comsn., Julian S. Wolfe, Secy., purchased \$100,000 of 6 per cent serial \$1000 denomination bonds. (Lately noted inviting bids.)

Tenn., Chattanooga—Street.—City, Alexander W. Chambliss, Mayor, will receive bids until Jan. 17 on \$18,667.55 bonds of Paving Dist. No. 242; 6 per cent annual 9-year bonds, dated Jan. 15.

Tenn., Jasper—Road.—Marion County Commissioners voted \$250,000 road bonds.

Tenn., Jasper — School. — Marion County Comms. voted \$200,000 bonds.

Tenn., Knoxville—Street.—City Comsn. will invite bids on \$155,000 of street bonds. (Lately noted.)

Tenn., Knoxville—Water.—City Comsn. will vote on waterworks bonds.

Tenn., Livingston—Road.—Overton County Comms., A. C. Copeland, Jr., Clk., will receive bids until Jan. 22 on \$50,000 of 6 per cent 11 to 20-year bonds.

Tenn., Trenton—Refunding.—Gibson County Comms. issued \$150,000 of 6 per cent \$1000 denomination bonds, payable \$10,000 each yr., beginning 1922 and continuing until entire amount is retired.

Tex., Athens — Road. — Henderson County Road Dist. No. 8 issued \$39,000 serial 5½ per cent bonds.

Tex., Clarksville—Levee.—Red River Levee

Improvement Dist. No. 1 issued \$80,000 of 6 per cent serial bonds.

Tex., Conroe—Road and Bridge.—Montgomery County, W. H. Lee, County Judge, sold \$175,000 of 5½ per cent semi-annual bonds, dated June 1. (Lately noted inviting bids.)

Tex., Corsicana—Levee.—Navarro County Levee Improvement Dist. No. 4 issued \$87,000 of 6 per cent serial bonds.

Tex., Dallas—Hospital.—Dallas County Comms. will invite bids on \$225,000 hospital bonds.

Tex., Denton—Park and Coliseum.—City contemplates voting Apr. 5 on \$75,000 park and coliseum bonds. Address The Mayor.

Tex., Fairfield — Road. — Freestone County Road Dist. No. 11 issued \$33,000 of 5 per cent serial bonds.

Tex., Fort Worth.—Fort Worth's \$1,890,000 civic-improvement bond issue was rejected by the purchasers, New York companies. (Lately noted sold.)

Tex., Franklin—Road.—Robertson County Comms. voted \$35,000 bonds. (Lately noted to vote.)

Tex., Plainview—Sewer and Water.—City, C. H. Saigling, Secy., will receive bids until Jan. 20 on \$100,000 of 6 per cent 40-yr. bonds.

Tex., Slaton — Water. — City voted \$36,000 bonds. Address The Mayor.

Tex., Wichita Falls School.—Common School Dist. No. 25 will invite bids on \$3000 of 5 per cent \$200 denomination 15-yr. bonds. Address County School Supt.

Va., Lynchburg—Water, Street, City Hall and School.—City will issue \$2,000,000 water, street, city hall and school bonds. Address The Mayor.

### Financial Notes.

Alabama Home Building & Loan Assn., Birmingham, Ala., increases capital from \$6,000,000 to \$9,000,000.

Gatesville National Bank, Gatesville, Tex., increases capital from \$40,000 to \$100,000.

Planters Bank, Abbeville, S. C., increases capital from \$40,000 to \$50,000.

First State Bank & Trust Co., Waco, Tex., increases capital from \$200,000 to \$300,000.

Peoples Bank & Trust Co., York, S. C., increases capital from \$100,000 to \$200,000.

Guaranty State Bank of Robstown, Tex., increases capital from \$20,000 to \$50,000.

Rosebud State Bank of Rosebud, Rosebud, Tex., increases capital from \$25,000 to \$50,000.

Alamo National Bank, San Antonio, Tex., increases capital from \$500,000 to \$1,000,000.

First National Bank, Newcastle, Tex., increases capital from \$25,000 to \$50,000.

First National Bank, Pampa, Tex., increases capital from \$25,000 to \$50,000.

Peoples Trust Co., Kansas City, Mo., increases capital from \$250,000 to \$500,000.

Ohio Valley Fire & Marine Insurance Co., Paducah, Ky., probably will increase capital from \$150,000 to \$200,000.

First State Bank & Trust Co., J. H. Lockwood, Prest., Waco, Tex., increases capital from \$200,000 to \$300,000.

Citizens and Marine Bank, Newport News, Va., increases capital from \$50,000 to \$100,000 and surplus fund to \$150,000.

State Bank & Trust Co., W. J. Nigdl, Prest., Eagle Pass, Tex., increases capital from \$75,000 to \$100,000.

Louisiana Trust & Savings Bank, Baton Rouge, La., increases capital from \$50,000 to \$100,000.

Community Savings & Loan Co., A. L. Gregory, Secy.-Treas., Huntington, W. Va., increases capital from \$125,000 to \$250,000.

Leeds State Bank of Jefferson County, Birmingham, Ala., increases capital from \$10,000 to \$25,000.

On Jan. 3 the Central Bank & Trust Co. of Atlanta, Ga., opened a new branch, located at 10th and Peachtree Sts. This section of Atlanta is rapidly becoming a commercial center.

Lynchburg Co-operative Building and Loan Assn., Lynchburg, Va., has matured its first issue of stock and paid out to shareholders \$37,435, at same time cancelling mortgages and collateral loans to amount of \$21,265. The total amount of first issue of stock matured \$88,700. The concern has outstanding 1,200,000 shares of stock, and new series will be issued as of date of Feb. 1.

Farmers State Bank of Putnam, Tex., increased capital from \$20,000 to \$25,000.

**YOUNG & SELDEN COMPANY**  
MANUFACTURING  
**Bank and Commercial Stationers**  
BALTIMORE, MD.

When you use Chesapeake Brand Carbon Papers and Typewriter Ribbons the first Impression is Lasting.

Why do you make Carbon Copies if not to be permanent? Send for your samples now.

**Graham, Tinley & Co., Inc.**  
17 West Lexington Street  
BALTIMORE, MD.

*We are serving hundreds in the South. Join our list of satisfied customers.*

FOR INFORMATION ABOUT  
**BIRMINGHAM REAL ESTATE**  
and INVESTMENT OPENINGS, write  
**JEMISON**  
REAL ESTATE & INSURANCE COMPANY  
BIRMINGHAM, ALA.

**BOOST PRODUCTION**  
Add 20 per cent. to speed by equipping your stenographic department with  
**REID COPYHOLDERS**  
**A. B. REID & COMPANY**  
223 Grand Ave., W. Detroit, Mich.

**DELAWARE CORPORATIONS**  
DIGEST OF LAW  
(7th ED.) FREE ON REQUEST  
STOCK WITHOUT PAR VALUE, if desired.  
The most modern and scientific method of corporate organization  
CORPORATIONS ORGANIZED AND REPRESENTED.  
22 Years' Experience  
**Corporation Service Company**  
Equitable Building, Wilmington, Del.